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The Old Bailey Sessions-House Competition.

THIS competition, which has excited so much interest in the profession, has at last been decided in favour of design No. 4, by Mr. Mountford, and the six sets of drawings have been on view this week in a gallery in the Guildhall.

The six invited competitors were, as our readers may remember, Mr. Baggallay, Mr. Belcher, A.R.A., Mr. Brydon, Mr. Florence, Mr. Hare, and Mr. Mountford; Professor Aitchison having acted as assessor. The new building is to be a Sessions House, containing central criminal courts, to be erected on the site at present still occupied by old Newgate Prison. The requirements included four courts, and all the usual departments for the business of criminal courts—judges' and jurors' rooms, witnesses' rooms, &c.; and eighty cells for prisoners waiting, sixteen for females, the remainder for males, which we presume represents the estimated proportion of criminals in the two sexes. There was also a separate department included under the general term of the Lord Mayor's suite of rooms, comprising a Lord Mayor's parlour, Sheriffs' "Fund-room" (to serve also as ante-room to the Mayor's parlour), robing-room, Recorder's room, Common Serjeant's room, and two Sheriffs' and two Under-Sheriffs' rooms. All these were to be grouped together, with a separate entrance and staircase of a state character for the Mayor; and a service room and lift for occasions when luncheon has to be served to the judges in the Mayor's parlour. It was also pointed out that this group of rooms should be near the principal court, on the bench of which the Lord Mayor has a seat *ex officio*, it being usual on the first day of a Sessions for the judges to meet the Lord Mayor, Aldermen, Recorder, Common Serjeant, and Sheriffs, when a formal procession is made to the bench of the principal court. This requirement of course should influence the manner in which the Mayor's room is connected with the court, so as to enable the procession to take place in a dignified manner. It was also required in the instructions that there should be space in the yard adjoining the Lord Mayor's entrance for the Sheriff's four-in-hand carriage to approach and turn; a requirement which also influences the choice for the position of the Lord Mayor's entrance and the planning of the approach to it.

The courts are one of 2,500 superficial feet in area, one of 2,000 ft., and two of 1,200 ft. each; the latter we presume are police or magistrates' courts, though it is not specially stated so in the instructions.

We naturally look first at the drawings of the selected design. Mr. Mountford points out, in his report accompanying the drawings, that as some of the rooms ought to be of more height and dignity than others, he has thought it best to adopt the system of a mezzanine story from which the extra height can be borrowed where required. The principal public entrance leads into a central hall of spacious and dignified appearance, with a large semi-circular coffered arch over each face of the plan, the angles of the piers emphasised by fluted pilasters; the transition to the circular plan of the dome is effected by "squinch" arches with panelled soffits across the angles—a Gothic device applied in Classic guise. The corridors right and left which run out from the hall are divided longitudinally by a row of coupled columns; but between these and the central hall is a minor vestibule on each side, placed across the axis and with an apse at each end; from the inner apses doors of communication open. The outer apses seem rather wasted as a matter of space, but they will contribute to the dignified appearance of this portion of the interior, and may be useful as quiet places for appointments and consultations. The principal staircase is in the centre of the building facing the entrance hall. The courts are placed symmetrically side by side on the upper floor; "witnesses immediately wanted" are in rooms opposite to the large courts but separated from them by a wide corridor; such rooms are better, we think, more closely connected with the courts and less conspicuous. The general waiting-rooms for witnesses are on the ground floor, as they are in most or all of the designs—in fact, there is no room for them on the upper floor, but we are rather surprised to see that these rooms have no lavatory accommodation directly connected with them, not even in the female witnesses' room; this accommodation is downstairs, and is reached by stairs which seem rather too conspicuous; at all events, this is hardly the most desirable arrangement. The Mayor's parlour we should say was a little too much cornered at the south-west extremity of the building; its connexion with the court is convenient enough in a practical sense but hardly dignified enough. In other respects this main or court floor is very well planned, and the connexion of the judges' private corridor with that of the Lord Mayor's suite is well arranged.

The exterior of the building is treated in a simple and dignified manner, with a rusticated ground story, and an Ionic order employed over it at certain accentuated points. On the front towards Newgate the plan is given a slight curved sweep, somewhat in the same way as the architect has employed in his Liverpool Technical School buildings, of which this part of the design rather reminds one. Over the central hall is the external dome, on a massive square base and with square pavilions standing up over the angles of base; the whole looks well, but we rather question the advisability of erecting a smaller dome so near to that of St. Paul's. The author notes that the coursing of the masonry (we presume this refers mainly to the rusticated ground story) has been arranged with a view to using as much of the stones of old Newgate building as may be in a suitable condition.

We may take the other designs in the order in which they are numbered. No. 1, by Mr. Hare, shows a much better plan on the upper floor than on the ground floor. The rooms for witnesses on the ground floor are a long way from the public entrance, and the lavatories for men and women, contiguous to them, are arranged in a most primitive manner, opening on the main corridor with their doors facing each other; a feature which certainly surprises as the work of such an experienced and generally

excellent planner. On the upper plan the courts are both conveniently and effectively arranged so as all to open out of a large square central hall; the two large courts facing each other to right and left of the hall, the smaller ones at the back. The space for "witnesses immediately wanted" is taken out of the courts by the employment of partitioned off-spaces. The centre hall is covered by a pendentive dome, resting partly, on the front and back sides, on a colonnade of coupled columns in three bays across the width of the hall. The jury retiring-rooms are upstairs, which is not so convenient as having them in immediate proximity to the court. But in the main this court floor is exceedingly well planned. The Lord Mayor's parlour is in the position adopted by most of the competitors, towards the south-west angle of the building, and would be a fine and effective room—a long room with an apse at each end, opening at the side into a wide corridor. The exterior design of the building is obviously inspired by the desire to preserve the memory of the old Newgate building; it is entirely rusticated, with a centre block with heavy pavilions at each end, a lower slightly recessed wall on each side, on the upper part of which two columns, dividing it into three bays, form almost the only decoration of the front; and angle pavilions repeating those of the extremities of the centre block. The whole has a stern but impressive effect, and preserves the *genius loci*.

No. 2, by Mr. Florence, shows an exterior building of a massive Classic character, somewhat recalling Soane and the Bank of England, in the way the order, planted here and there, is contrasted with plain surfaces of masonry, and the sky-line of the building varied, while kept together by a strongly marked continuous cornice. The special feature of the plan, in which it differs from all the others, consists in a very wide corridor or gallery extending from front to back, at right angles to the longer axis of the building, with a square hall in the centre, and two public stairs symmetrically placed to right and left of it; an effective arrangement. The object of the plan has been to keep the courts and the official department separate, so that when the courts are not in use they can be entirely shut off; which may no doubt be convenient. There are however some rather curious points in the plan. The witnesses-in-waiting, on the ground floor, have no separate room, but spaces marked out merely by part of the colonnades of the ground floor hall, and the doors of their respective retiring-rooms are publicly and openly visible, which is a rather naïve arrangement. The "witnesses immediately wanted" rooms upstairs have lavatories adjoining and reached from the interior of the rooms, but their space is got by merely walling off a part of the floor-space in the corner, which again is what we should call rather an unscientific manner of planning. The corridor carried along the Old Bailey front of the plan is intended to screen the courts and offices from the noise of the street; the courts of course ought to be so screened, and are so in all the plans, but it can be done without spending the best light of the largest front on a corridor. The Lord Mayor's parlour, placed near the south-west angle of the building, is connected with the principal court in a dignified manner, by a wide corridor with the court door central at the end of it, but it is an unfortunate incident that this door, though central to the corridor outside, is not central to the apse or alcove within the court, into which it opens, which would a good deal mar the dignity of the entry of the procession into court. Altogether, this plan strikes one as rather confused and wanting in system. Externally, the square central hall before mentioned is marked by a lofty tower rising to a considerable height in a perfectly plain mass of wall, crowned by an upper stage with a small pediment on each face, and surmounted by a blocking carrying an armillary sphere—a feature which appears to be rather popular at present as an architectural finial.

Mr. Brydon, the author of No. 3, observes with truth that the keynote of the problem is given by the passage in the Instructions in which it is observed that such a building as this "should be dignified and impressive rather than lavishly ornamental." He has adopted a bold and striking manner of giving what may be called civic dignity to the proposed building. The main interior feature of the plan is, in the first place, a long and wide entrance hall running parallel with the Old Bailey front, with a monumental staircase at the north end, and above this a waiting hall or *salle des pas perdus* on the same level as the courts, which is of course the proper place for a hall with that object. These two stories of hall he treats separately as a great mass of building rising above the rest, with a large colonnade along the Old Bailey frontage, the wall of the halls being somewhat recessed back behind the colonnade. Mr. Brydon evidently feels that there is hardly depth enough in the rear of the colonnade, as he suggests that if his building were carried out, permission should be obtained to carry the colonnade out to the front of the pavement line. Something more would be required, however, to "stop" it at the ends in that case. Above the cornice is a lofty blocking story, the two together almost evidently a reminiscence of St. George's Hall at Liverpool. This is no doubt striking in effect, but it seems to us that the two end blocks of the elevation, lower in height and treated in a quiet kind of club or mansion style, with pedimented windows and rustication at the angles, have rather the appearance of belonging to a different design, and the whole gives too much the impression of a temple with a dwelling house built against each end of it. Then the principal entrance, in the wall behind the colonnade, though central with the inner hall, is not central with the colonnade, which extends further southward outside than the hall does inside; the entrance is rather narrow, too, and altogether seems to come in rather an accidental fashion behind a colonnade which gives no indication of it. Those are the drawbacks to what is nevertheless a striking and original idea. Internally the great waiting hall is no doubt a fine idea. The general witnesses' rooms on the ground floor are well placed and easy of access. On the first floor the "witnesses immediately wanted" are in this plan again provided for in spaces partitioned off from the main area of the courts. There is a little awkwardness in the placing of the judges' rooms in connexion with the two large courts; Judge No. 2 has the entrance to his room centrally at the end of the cross-corridor, but Judge No. 1 can only enter his court either through No. 2's room, or through a side lobby cut out of the corner of his own court; and No. 2's room also cuts off the communication of No. 1 with the judges' private corridor; and unless the two judges are on very friendly and intimate terms, there will be awkwardness. The Lord Mayor's parlour is conveniently placed for access to the court, but not in the most dignified manner, as it only communicates with the main corridor by rather narrow sideways corridors. Where there is to be anything like a procession occasionally, there should be the means of doing it in a stately way: a procession is nothing if not stately. The *salle des pas perdus*, with its three bays each lighted by a domed compartment, would be a fine hall. The carriage approach to the Lord Mayor's entrance is also well managed.*

Mr. Baggallay's design, No. 5, is unquestionably the best plan among the six; in fact, as a matter of plan we do not see that there is any criticism to make on it. We may particularly remark the excellent manner in which the witnesses' rooms are placed and planned, and the planning of the Lord Mayor's room and the ante-room. The parlour is placed across part of the south end of the plan, and one of the doors of parlour, and one of those of the ante-room, centre axially with the line of the main corridor, which leads up to the door of the principal court, so as to make a dignified access for the procession. This portion of the building is certainly not so well arranged in any other design. A wide corridor is provided on the same floor as the courts for promenading and consultation; and the judges' rooms are quite satisfactorily placed both for access to the courts and for communication with the superior officials in the Lord Mayor's department. In the exterior design Mr. Baggallay has adopted the later English Renaissance, and has aimed at preserving something of the character of old Newgate. The exterior is almost entirely in rusticated work; the upper portion of the Old Bailey front is deeply recessed at two points, leaving lower buildings between and connecting them, the upper portion of which is decorated with a sculpture frieze. A perspective view of one of the courts shows a dignified interior with a richly decorated coved ceiling and a skylight.

No. 6, by Mr. Belcher, is, as usual with him, illustrated in a very fine series of drawings. In the plan, as noted in the author's report, the witnesses' rooms &c. are all kept to the south side of the courts, and Lord Mayor's rooms and those of the superior officials to the north; an arrangement which has its advantages, but with the disadvantage that some of the rooms which should be immediately connected with each court are decentralised, and some of them are too far from their court. The state entrance is on the angle of Old Bailey and Newgate-street, which is treated as a quadrant on plan, the lower story forming a porte-cochère with rusticated piers, the upper story a colonnaded loggia behind which is the

* We understand that this design, though sent in under the name of Mr. Brydon, was really the joint work of himself and Mr. J. S. Gibson, and had it been selected, would have been carried out by Mr. Brydon and Mr. Gibson as joint architects.

circular library; above this is a rather playfully treated cupola, with decorative sculpture effectively introduced; in the centre of the curve of the cornice, over the loggia, is a large bell hung in a frame, and two bronze figures, apparently intended to strike on it. The long front towards the Old Bailey is quite symmetrical, rather flatly treated with an order of pilasters, and a raised centre feature with a deeply recessed arch. The central hall, of which a view is shown, is a fine apartment, with a barrel vault carried on square pillars and side arches turned over the space between them: a balustraded gallery abuts against the pillars on the upper level, with arched openings of communication between the pillars and the wall. The vault, divided into compartments by a rib over each pillar, shows an effective arrangement of modelled or sculptured decoration about the springing, well contrasted by the blank spaces in the centre of the compartment. There is a very fine large detail elevation of the angle portion of the building, but we confess we cannot fancy that quadrant porte-cochère, with the sharp turn necessary to get into it, as forming a convenient or even a possible approach for a carriage-and-four.

The designs, taken altogether, make a very fine collection, on which no trouble has been spared by their authors; and the whole competition has been conducted with the best intentions and in the fairest possible manner.

NOTES.

The National Gallery.

IT is satisfactory to learn that the fire which recently took place in the buildings immediately adjoining the National Gallery has at last roused the Government to a practical recognition of the danger to our national picture gallery from this proximity of buildings not under official control, and that the First Commissioner of Works is in treaty for the purchase of the property in question, with a view to isolating the National Gallery. It is fortunate that it is not too late. Warnings in regard to the danger to the National Gallery from the houses built close up to it have been for years repeated in vain. It seems that nothing short of an actual fire could arouse the Government to take any practical steps in the matter.

The National Housing Reform Council.

WE have received a statement from the recently-established National Housing Reform Council as to its objects. We welcome such a body, for it is only by means of some organised movement that social objects can be attained. The Commons Preservation Society, for example, has secured for the English people acres of land which would have been lost to them without its aid. Such a body as the above Council, by quickening public intelligence and supplying information, can do a great deal towards solving the housing problem. As we have more than once pointed out, it is complicated by various elements. It is most easy of solution in rural districts and country towns, where space is less valuable than in crowded cities, and it is in the former places that the Council can be most useful. In the great cities the subject engages the attention both of the public and of those who administer local affairs. It is where public interest needs to be quickened that a body such as this can be most valuable. It is to be hoped, however, that, as stated, this Council will act on non-party lines, and also in a judicious and temperate spirit, looking mainly to practical objects.

The Price of Gas.

THE Gas Light and Coke Company, London, is about to raise the price of gas to private consumers from 2s. 11d. to 3s. 5d. per 1,000 cubic feet. Several weeks ago we pointed out that the high price of gas coal would probably necessitate a general rise in the price of gas throughout the country, and since then news has been coming to hand every week of the price being largely increased in one town or another. In some localities agitations are being started to protest against the increased charges, but it is foolish to imagine that gas manufacturers who have had to pay 100 per cent. more for coal than last year can avoid raising the price of gas. We do not doubt that gasworks' managers are fully alive to the fact that these increases are extremely inimical to the prosperity of the gas industry, and will in their own interests lower their charges as soon as a fall in the price of coal will permit them to do so. A section of the community appears to be of the opinion that gas manufacture ought to be carried on upon philanthropic principles at the expense of the shareholder, and does not appreciate the fact that a rise in the gas charge injures the shareholder even more than the consumer. During the last few months the market values of many gas stocks have fallen very considerably.

Excavations at Corinth.

FROM the *Berliner Philologische Wochenschrift* (June 2, p. 703) we learn that at Chrysopitza, near Corinth, a peasant has by chance lighted on an important find of 200 terra-cotta figures. Of these about half are of fine style (period of Pheidias), somewhat analogous to those recently discovered at Thermon, near the Temple of Apollo, and of very delicate workmanship. A large number of the figures represent a young girl carrying a jar on her head. With the terra-cottas were found upwards of 100 white lekythoi, some of them decorated with fine and well-preserved designs. Rumour says that at Colonos the grave of Sophocles has been discovered, and that the discovery is made certain by an inscription, but as this is not the first time the grave of Sophocles has been discovered and the characteristics of his skull discussed, we wait further information.

Bradfield College Play.

THE presentation of a Greek play in an open-air theatre, set to accord with all that is known of the original of 2,400 years ago, cannot but appeal to a large variety of minds. The theatre of Bradfield College, built in a disused chalk-pit with a pretty approach and completely hidden by the greenest of shady walls, was the centre of interest to a large number of visitors on Tuesday, when the first of the present series of performances of the "Agamemnon" of Æschylus was given in the Greek text by the boys of the college. An innovation in the performances was that the female characters of the play were taken by boys. With the classic revival of fifty years ago everything Greek was fashionable. The Greek stage and its accessories were all carefully reproduced in the presentation of the "Antigone" of Sophocles in London, which was afterwards reproduced in Edinburgh. We can imagine the screen or temple-like front of the stage on that occasion may have received more attention from the originators and from the audience than that at Bradfield seems to receive, and indeed it would not be difficult to criticise the shrine that now frames the principal actors of the play; we hope, however, that it will give place to a permanent structure based on a Greek model. The acting itself was a great success, each actor displaying the conspicuous merit of distinctness; not a word was slurred. The difficult part of Clytemnestra, taken by Mr. A. P. Blount, was carefully studied, and Cassandra, the prophetess, was excellently done by Mr. L. Starey, in spite of the inevitable lack of interest through the absence of womanly voice and gesture. Talthybius, the herald, taken by Mr. A. F. Gardiner, was quite the best piece of acting. Throughout, the applause of an academic and critical audience was frequent and genuine. The weather, an important element in an open-air theatre, was all that could be wished.

Ruskin Hall in America.

THE proposal to establish a Ruskin Hall at St. Louis with funds voluntarily contributed by the trades union and other societies is a proof of goodwill to America which is worthy of notice and of welcome. At the same time it is, we fear, a singularly irrational proceeding. A so-called Ruskin Hall was established in Oxford by some American gentlemen for the purpose, as we understand, of enabling some intelligent artisans to take advantage of some of the advantages in the way of culture and education which exist at Oxford. Oxford is a unique place, and to some extent it is the intellectual atmosphere of the place and its association of centuries of learning, as much as mere educational facilities, which the establishing of Ruskin Hall was intended to place near an intelligent artisan. But St. Louis is St. Louis: big, bustling, and full of worldly energy, crammed with men eager in the pursuit of wealth and personal advancement. A Ruskin Hall at St. Louis can only be a mere common college. In the United States also the son of the artisan begins his education side by side with the son of the capitalist, and there are higher grade schools and colleges open to all. There seems, therefore, to be no object in thus establishing a Ruskin Hall in the West of the United States. At the best it can only be a mere voluntary college, without any special advantages.

School of Art Wood-carving.

THIS school, having received from the Clothworkers' Company a grant of 50*l.*, in addition to a similar grant from the Drapers' Company, is enabled to continue its work for another year in rooms rented from the Imperial Institute. But for this timely grant it would have been necessary to close the school, as the committee of the City and Guilds Institute, in consequence of the increasing demands on their funds, have been obliged to withdraw their annual grant of 250*l.* The closing of the school is, however, only deferred for a year unless aid towards its funds can be obtained from some other source. We should regret very much to hear of the school being closed for want of funds, as it is doing good work.

British Archæological Association.

THE Fifty-seventh Annual Congress of the British Archæological Association will be held at Leicester (as a centre) from Monday, July 30, to Saturday, August 4. Among the places in the neighbourhood to be visited are Belvoir Castle, Kirby Castle, Ulverstoke Priory, Bosworth Field, Lutterworth, &c. August 2 will be devoted to the inspection of buildings and sites of interest in Leicester itself. Further information and tickets can be obtained from the Hon. Secretaries, Mr. George Patrick, 16, Red Lion-square, London, and the Rev. H. J. Dukinfield Astley, East Rudham, King's Lynn, Norfolk.

New Electric Lamp-Standards.

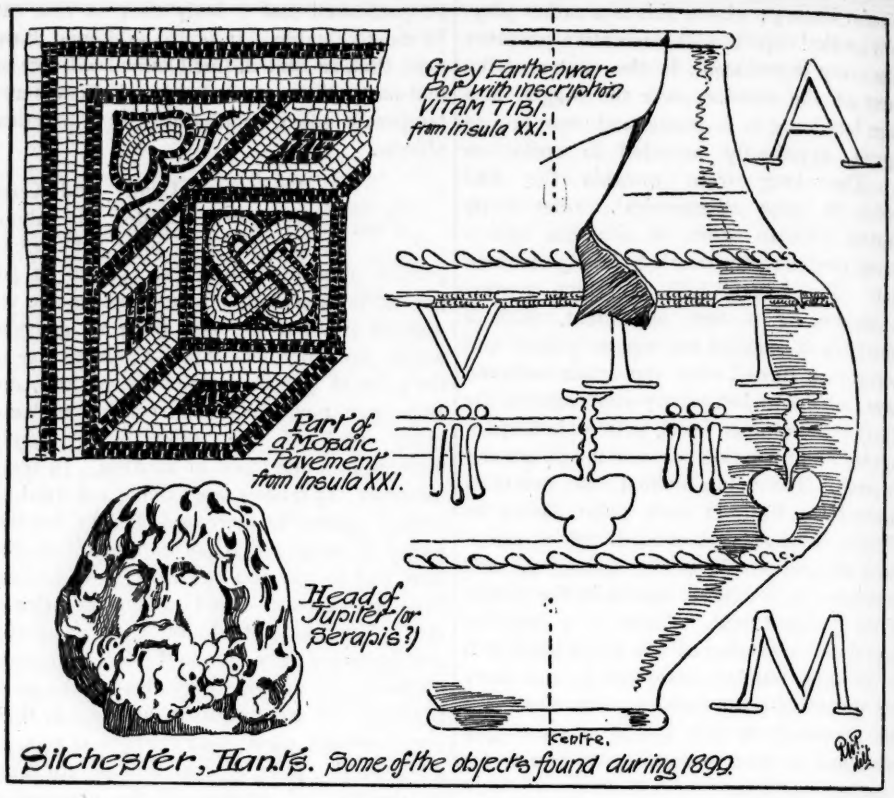
THE electric lamp-standards recently erected in the district of St. Martin-in-the-Fields may have been noticed by some of our readers; they are at all events large and conspicuous, and exhibit a praiseworthy attempt to produce something a little better than the ordinary street lamppost. The Vestry seem, however, to have made the mistake usually made by official bodies in England, in such cases, of going to a firm and not to a known and independent artist; the design was the subject of a competition in which Messrs. Singer & Sons obtained the first premium and Messrs. Benham & Froude the second. The lamppost itself is well designed, both in what may be called the plinth (with a small relief panel of St. Martin from a sketch by Mr. Seymour Lucas), and in the stem, with its graceful swelling lines and slight low-relief ornament at the base; but the curling-over bracket from which hangs the actual lamp looks rather too pretentious, and the bend backwards unnecessary and rather awkward. In the main, however, we must compliment the St. Martin's Vestry on having produced a lamp-standard of some character, and which is not commonplace.

The Fine Art Society.

AN exhibition, at the Gallery of the Fine Art Society, of miniatures of dogs by Mrs. Gertrude Massey, pastels and paintings by Mr. Austen Brown, and etchings by M. Edgar Chahine, derives its chief interest from the distinctive work of Mr. Austen Brown. Most of his subjects relate to evening and moonlight effects, of which a pastel, "Unloading by Moonlight," in subdued colours, and "Moonlight" in stronger light, are delightful studies of country life. A painting entitled "In the Lane" is all sun and heat, two figures seeking the scanty shade cast on the road by two magnificent trees. "Ploughing by Twilight" is another delectable colour composition. The etchings of M. Edgar Chahine are very clever impressions of low characters, which, save for the handling, make of the author a kind of French Phil May. Nos. 6, 7, and 11, for instance, are studies of mere vulgarity, while here and there, as in "Le Chemineau," is displayed a rare touch of less shallow inspiration. A pastel by this artist, "Etude, Distribution de Soupe," is full of life and very pleasant in colour.

The Handel Festival.

THE first day of the Triennial Handel Festival, Tuesday, was marked by a very fine and successful performance of the "Messiah," though we regretted to see so many empty seats in the stalls. War-time, which affects not only the pockets but also the feelings of many people, is no doubt partly accountable for this. The Hallelujah chorus—a composition of such breadth and simplicity in its grandeur that, if we could only get sound to travel instantaneously, it might be sung by millions instead of thousands—has perhaps never been given at the Festivals with such overwhelming effect. Mr. Santley, who first sung at these Festivals thirty-nine years ago, and has we believe sung at every one since, sang "Why do the Nations" with almost all his old fire, and received all his old welcome from chorus and audience. The other chorus singers were Mme. Albani, Miss Clara Butt, and Mr. Edward Lloyd. Thursday was the "Selection day," when a considerable portion of "Judas Maccabeus," the specially warlike oratorio, was to be given as being suitable to the circumstance of the moment. To-day (Saturday) is to be devoted to "Israel in Egypt." In reference to this oratorio, which contains a great deal of matter which is not really Handel's, but incorporated by him from other sources, those of our readers who are attending the performance, and who may be interested to know when they are hearing Handel and when they are not, will find in the *Pall Mall Gazette* of Friday the 22nd an article by the Editor of this journal, giving a complete statement as to the genuine and not genuine portions of "Israel in Egypt."


Grey Earthenware Pot with inscription VITAM TIBI. from Insula XXI.
Part of a Mosaic Pavement from Insula XXI.
Head of Jupiter (or Serapis?)
Silchester, Hants. Some of the objects found during 1899.

SILCHESTER.

THE tenth exhibition of objects of interest found on the site of the Roman city of Silchester in Hampshire was opened to the public on Tuesday last, at the Society of Antiquaries, Burlington House, and will remain open until the end of next week. During the past year, two *insulæ* near the north gate have been excavated, known as Insulæ XXI. and XXII. Foundations of four houses were discovered in Insula XXI. In a large house on the east side were some plain mosaic pavements in black, red, and buff tesseræ, somewhat peculiarly arranged. The main entrance or vestibule has a pavement of alternate bands of black and red, the passage leading out of it being buff with two red bands, and a black one in the centre. The whole of the west corridor and part of the north corridor had a pavement of black tesseræ, with a red border, while the remainder of the north corridor had a plain red pavement. In one of the rooms on the south side of this house is an angle of a more ornate pavement in black and white mosaic with red tesseræ introduced into the leaf at the angle. This fragment we illustrate, and a rough sketch plan is also given of the corridors above described. The houses in Insula XXII. were also apparently four in number, but call for no detailed description. A large amount of pottery and bronze ornaments and glass vessels are exhibited, and an interesting series of seeds was found in one of the pits, most if not all having been identified. There are many brooches among the bronze ornaments, one circular in shape with a delicate enamelled pattern. One or two examples of pottery are remarkable for their refinement of ornamentation, and a grey earthenware pot (which we illustrate) has an incription—VITAM TIBI—in white over an effective band of ornament, with inverted trefoil leaves. A head of stone, suggested as being of Jupiter or Serapis, about a foot in height and the same in breadth, is interesting as being but the third piece of sculpture found on the site. The only other fragments of architectural work are a portion of a fluted pilaster and some plaster with coloured decoration.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS:

GENERAL ARCHITECTURAL CONGRESS.

A GENERAL Architectural Congress has been held in London this week, under the auspices of the Royal Institute of British Architects. The Congress opened on Monday evening at No. 9, Conduit-street, Regent-street, by a reception by Mr. William Emerson, President of the Royal Institute of British Architects, and among those present were Count Carobbio, of the Italian Embassy, Sir Lawrence Alma-Tadema, Sir Thomas Drew, Sir H. Howorth, M.P., Sir John Taylor, Colonel Prendergast, Professor Aitchison, R.A., and Messrs. F. C. Penrose, Aston Webb, A.R.A., Hippolyte J. Blanc, R.S.A., J. M. Brydon, W. D. Caröe, Arthur Cates, E. A. Gruning, E. W. Mountford, T. M. Rickman, John Slater, R. Phené Spiers, W. M. Fawcett, Thomas Blashill, Alex. Graham, J. Douglass Mathews, Andrew Oliver, H. H. Statham, Leonard Stokes, Beresford Pite, W. A. Pite, R. W. Schultz, John Hebb, P. Gordon Smith, W. Carby Hall (President, Leeds and Yorkshire Architectural Society), Charles King (President, Devon and Exeter Architectural Society), H. V. Lanchester, R. E. Crossland, H. H. Langston, Chas. Löhr, R. E. Dexter (U.S.A.), A. J. Meacher, F. Waller, R. J. Goodacre, Henry Hall, H. Lovegrove, J. Souttar, S. J. Nicholl, A. N. Prentice,

Zeph. King, J. D. Mould, S. F. Bartlett, H. Hoyne Fox, F. Batchelor, C. Fowler, E. C. Beaumont, F. W. Mee, W. Henry White, A. M. Watson, C. G. Yates, the Misses Charles, and others.

After the reception, the opening meeting of the Congress took place, the President of the Institute, who presided, remarking that it was also a general meeting of the Institute for the purpose of presenting the Queen's Gold Medal to Professor Lanciani.

Presentation of the Royal Gold Medal.

Herr Neckelmann, of Stuttgart, Mr. W. Carby Hall (of Leeds), and Mr. C. King (Exeter), having been introduced to the meeting,

The President said the presentation of the Royal Gold Medal was an annual event, and the medal was awarded by her Majesty, on the recommendation of the Council of the Institute, to a distinguished architect, archæologist, or man of letters, who, by his works, had furthered the interests of the art of architecture. Professor Lanciani, to whom the medal had been awarded this year, was unfortunately unable to be present, but he had written to say how deeply he regretted his inability to be with them that evening, and had asked his friend Count Carobbio, of the Italian Embassy, to receive the medal on his behalf. Proceeding, the President said :—

"Professor Lanciani, to whom the Queen has done the distinguished honour of awarding her Gold Medal this year, desires me to say how deeply distressed he is at being prevented attending this evening to receive it ; but his presence in Rome just now is imperative. Therefore, Count Carobbio has been deputed by his Excellency the Italian Ambassador to receive it for him. Since 1848, when the first presentation was made, the Medal has been conferred upon distinguished men of many nationalities, but only once during that time on a countryman of Professor Lanciani. In 1849 it was presented to that famous Italian, Luigi Canina, whose voluminous works occupy an important place in our library. Signor Canina and Professor Lanciani are united across the years by many bonds of sympathy, by the nature of their work, by their common interest in and love for the Eternal City of the Seven Hills. In this interest all architects must share, for is not the home of the Pantheon and St. Peter's one of the first objects of their pilgrimage ? But although, as we know, all roads lead to Rome, it only gives up its secrets to a chosen few, whether architect or archæologist. And to none has it been more communicative in this respect than to Professor Lanciani, who has contributed so abundantly to our general as well as special knowledge of the city in all its architectural aspects and historical phases.

On the occasion of these presentations it is usual to give some detailed and authoritative account of the life and work of the recipient. Professor Lanciani's life has been one of so much labour that the mere recapitulation of what he has accomplished would speak more eloquently of his many claims to distinction than any eulogy which might be pronounced from this chair. I must, however, content myself with a brief and general outline of his career. Rome, which has been the scene of his labours, was also the city of Rodolfo Amadeo Lanciani's birth, which occurred on January 1, 1848. Graduating first in philosophy and mathematics in the Collegio Romano in 1867, two years later he again graduated in mathematics at the University of Rome, and a year later received the diploma of architect and engineer. In 1871 he assumed the post which brought him into touch with his life's work—the post of Assistant Director of Excavations, from which, three years later, he advanced to the position of Director, which he retained until 1890. He combined this position with the professorial Chair of Topography at the University of Rome, and at the same time acted as secretary of the Archæological Commission of Rome. I need not, perhaps, dwell on the prominent part which Signor Lanciani has taken in Roman excavations further than to mention the valuable results which he obtained from his work on the Sacra Via—on which he was engaged for four years—and from his excavations at the Thermæ of Agrippa, the House of the Vestals, the theatre and barracks at Ostia, Nero's villa at Subiaco, and other works which are pretty generally known to students of Roman archæology. But it is not only from the earth that Professor Lanciani has brought fresh material to light. He believes in the importance of the unpublished document, and in other fields of original research than those of excavation his labours have been equally indefatigable and realised similar valuable results. Most of the principal European libraries, both public and private, are known to him, and his discoveries have been many and important, the fruits of which have appeared in his contributions to the Transactions of Italian and other learned societies.

This brings me to his career as a writer. I understand that down to the end of last year no fewer than four hundred and seventeen contributions of one kind and another from his pen had been published. His first work, a catalogue of the Castellani Etruscan Collection in the capital, obtained for him the gold medal of the City of Rome, and his book on aqueducts ('I Commentarii di Frontino,') published in 1880, was recognised by the Royal Prize of 10,000 lire. One of his most recent works is 'Forma Urbis Romæ,' an archæological plan of Rome in ancient, mediæval, and modern times. I am glad to hear that this important addition to archæology and topography will shortly be followed by a similar map of the Campagna, supplemented by six volumes of text containing an account of archæological research in Rome since the revival of classic studies. The extent of the ground covered by this work may be gauged by the fact that it will contain some twenty-five thousand hitherto unpublished documents bearing on the excavations.

Professor Lanciani adds to his many accomplishments an excellent knowledge of English (which makes his absence to-night the more regrettable), and his 'Ancient Rome in the Light of Recent Discoveries' was written in English. He has at the present time a volume in the press entitled 'New Tales of Old Rome,' which deals with his latest discoveries in the Forum and on the Sacra Via, and which will be looked forward to with interest alike by the archæologist, the architect, and the historian. Professor Lanciani's labours have been great, and it must be satisfactory to him to know that they have been widely appreciated. Many European societies claim him as a distinguished member. Prussia, Russia, and his own country have conferred orders on him, and the Universities of Oxford and Glasgow, Harvard and Wurzburg have extended to him the distinction of their degrees. Signor Professor Lanciani is undoubtedly the greatest of Roman topographers, as is proved by his splendid work, the 'Forma Urbis Romæ.' Also he is great as an archæologist, no matter what sneers may have been cast at him or ungenerous criticisms written on some of his work, because others coming on the scene of the Forum excavations, somewhat later than he, dug a foot or so deeper and made discoveries which upset certain theories he had advanced. He, nevertheless, remains the man from whom some of those who cast stones at him had learned pretty well all they knew of Roman archæology in the first instance. Surely it is no shame that on certain evidence one may make conjectures which on further evidence being produced may have to give way to other views. This is not sufficient to condemn any man, and certainly not one who has done so much really excellent work as Signor Lanciani."

"Count Carobbio," continued the President, "I have the distinguished honour to hand you the Queen's Gold Medal for transmission to our excellent friend and confrère, Signor Lanciani, and to express the thanks of the Royal Institute of British Architects to you for so kindly attending this evening to receive it on his behalf."

The President, in presenting the medal to Count Carobbio, added that he had just received a telegram from Professor Lanciani saying that he was with them in spirit, and offering the Institute his heartfelt thanks.

Count Carobbio then received the medal, remarking that he was proud that so great an honour had been conferred on his countryman.

Photographs taken in Greece.

After the delivery of the gold medal, a series of photographs of various buildings of ancient Greece, taken by the late Mr. E. G. Spiers, were shown on the screen by the lantern light, and Mr. Penrose made a few remarks explanatory of each of them. The photographs included many of the best-known Greek monuments ; the Propylæa, Parthenon, and Erechtheion—one photograph from the Parthenon, looking along the aisle between the cella and the colonnade, was particularly fine and effective ; the Temple of Jupiter Olympius, the Temple of the Winds, the monument of Lysicrates, the temple at Olympia, and a good many others.

The President said he must ask them to accord a hearty vote of thanks to their old and dear friend Mr. Penrose for the trouble he had taken to be present and describe the buildings illustrated. Looking at the photographs and hearing the explanation gave those who had never been to see the buildings an excellent and vivid idea of them and their surroundings. The photographs brought before them very strongly the grand work of some of these old buildings, making modern men feel how very little modern efforts were beside these grand works of antiquity, and how hopeless it was, with modern requirements and financial conditions, to hope to equal the grandeur of the architecture of those days.

The meeting then terminated.

Tuesday :—"The Official Control of Public Buildings."

The second meeting of the Congress was held on Tuesday afternoon at No. 9, Conduit-street. Mr. William Emerson, who presided, read a paper on "The Necessity for Official Control over Architecture in our Towns and Cities." The subject before them, he said, was control over the artistic, the æsthetic, side of architecture ; as they knew, they had quite sufficient control in matters of construction. It must appeal to every one that artistically there was a great lack of control in regard to buildings in public streets and places, in which people were allowed to erect any sort of structure so long as it conformed to the Building Act. This was felt not only by educated English people, but by educated people abroad, and the subject would be discussed at the forthcoming Architectural Congress in Paris. In his opinion, the subject was one of considerable public importance, and one which affected the metropolis and provincial towns of the country to a considerable extent. The President then read the following paper :—

"The period of the most extraordinary and spontaneous revival in the art of architecture during the fourteenth and fifteenth centuries, known as the Renaissance, had been preceded by a wave of great interest in the advance of learning, culture, and knowledge. The century now at its close has been one also of unprecedented advance in all branches of learning, culture, and science. It has also been marked by many indications of a revived interest in architecture. This interest seems, however, to have been confined mainly to individuals, or small associated bodies of cultivated architects, archæologists, and artists. In fact, since the Renaissance in England, which followed hard on the heels of that in Italy, architecture seems to have been steadily on the decline. The strong classical movement in the earlier years of the century, and the enthusiastic outburst of Gothic revival later on, were however indications of the existence of some amongst us who recognised the importance of a fitting national architecture being evolved if our Metropolis and large provincial towns were ever to be worthy of the great British Empire. But the public interest in architecture is evidenced by the quality of the designs they appear to be contented with, and is exemplified by the numerous extraordinary conceptions seen in our streets and public places. Nevertheless there is an undoubted undercurrent of interest in, as well as growth in knowledge and appreciation of, artistic architecture, which is fostered by many of the artistic and building journals.

These reflections cause one to consider how it is that with all our increase of knowledge, all our growing interest in art, and all our opportunities of study and travel in other countries, our streets should be so replete with staring incongruities, uglinesses, ignorances, and want of refinement. One cannot help feeling that the following have been some of the reasons of this anomaly :—

(*a*) Ignorance and want of proper education of the public and the architects in artistic matters.

(*b*) Lack of public interest in the subject, causing unwillingness to spend money on architecture, and the mercantile desire to build as quickly as possible, in order to avoid pecuniary loss from rent or otherwise.

(*c*) Lack of control by competent educated authorities, either governmental or municipal, or estate agency, whereby at least the erection of palpable architectural enormities might be prevented.

In regard to (*a*) and (*b*), degeneration may have set in with the dying-out of the art and craft associations which in former years, both under the Church and guilds, exercised authority in architecture and art knowledge, and so carried out many of the important buildings in almost every country; these guilds handed down from father to son in successive generations what was known of the arts, as, in fact, takes place in the East at the present time. This system died, and with it their traditional art knowledge declined. Coming to our own times, undoubted improvement in regard to education in art is taking place every day. The Royal Institute of British Architects' Examinations now promote study on the part of the rising members of the profession, while the education of the ganeral public is so many-sided nowadays that even architecture claims some attention. But it is the third point, as to the desirability of control in respect to the design of our new buildings, to which I wish mainly to draw attention.

Could ancient Rome ever have developed the magnificence in architecture that its works reveal, had there not been some sort of control over the artistic as well as the constructive side of their buildings? If Augustus boasted that he found Rome of brick and left it of marble; and if the magnificence of Vespasian, the genius of Trajan, and the cultivated taste of Hadrian conceived and accomplished the noble works of their reigns, they evidently exercised a certain control over the embellishment of the imperial city. History tells us that it was the duty of the Proconsuls in ancient Rome and the provinces of the Empire to supply the deficiencies of the citizens in their building operations, to direct their taste, and sometimes to moderate their emulation with each other. The emulations of our citizens scarcely require much moderating in this respect now. The Romans were, however, apparently uncontrolled in regard to their private houses, and the modest simplicity of these proved their freedom in this respect. In our day it is also not so much in private dwellings that artistic control seems necessary as in semi-public buildings and business houses in our streets. During the Renaissance public taste and opinion had a controlling influence over architecture and art, for even the production of a new statue, if fine, was made the occasion of public ovation and rejoicing.

Public taste and opinion now have little influence; but the necessity of some competent control over the art of architecture is felt not only by many in England, but also in all parts of the civilised world. And as a proof of this feeling in France a book by a French architect, M. Gustav Kahn, is now, I understand, being published on this very subject. Most countries have control over the designs and construction of their public governmental and municipal buildings; but over private buildings facing on public streets and places, there appears to be hardly anywhere any other control than that affecting constructive or hygienic matters, or widths of streets and general heights. The question is how some efficient control—affecting not only the constructive but the artistic design of public as well as private buildings—could be obtained, and whether or not such a control would be advantageous.

In France—to quote the words of our late Secretary, Mr. William H. White—the Council of Building in Paris, the principle of which was first initiated by Colbert in 1663, has existed in some form or other since his day. In 1798 this Council, under another name and in altered form, took for a time the name of 'Assemblée Centrale des Architectes,' and consisted of seven architects. Later on a Councillor of State was appointed president, but the vice-president was always an architect. In 1838 this Council was extended to twenty-four in number, of whom fifteen were architects, and their duties were increased. The members of the Council were not permitted to design or execute new works under the Administration. They had the final judgment as to designs submitted in competition for public buildings. They also advised as to the selection of architects for new public works; and since then this Council has had the supreme control of all public works, there being numerous divisions—which I need not now go into—for the efficient control of the various departments of works. All were placed under the charge of a Minister at the head of the Maison de l'Empereur et des Beaux-Arts. The responsible chief of each division of public works was advised by committees of experts. I believe, unless any alteration has been made lately, the functions of Supreme Director of Works are divided between (*a*) the Minister of Public Instruction and Fine Arts, (*b*) the Minister of Justice and Public Works, (*c*) the Prefect of the Seine, (*d*) the Prefect of Police. The Minister of Public Instruction and Fine Arts, the Minister of Justice and Public Works, and the Prefect of the Seine are all advised in the matters of architecture and building by councils or committees, of whom a large proportion are architects. The Prefect of Police, whose duties are mainly in connexion with the safety of the public in respect to buildings in public streets, &c., is assisted by a number of architects, the Inspectors-General being men of high distinction in the profession. This systematic organisation has been responsible for some of the best and most beautiful buildings in Paris, and appears, in respect of public edifices, to give satisfactory results, and has undoubtedly influenced the national architecture of France. This control is exercised always over a design for a building which has to be carried out with the aid of funds contributed wholly or in part by a public body; but in France, when it is a question of private buildings, the control of municipal authorities is only extended over such matters as widths of streets, heights of buildings, and hygiene, but in no way over artistic matters. In fact, M. Lucas informs me of a case some years ago proving how little voice the authorities have in such matters. The story is as follows:—

A house-owner at Chantilly, wishing to force the owner of a house situated opposite his own upon the public road to quit the district, painted the façade of his own house black, with death's-heads and cross-bones picked out in white. This led to a series of actions and appeals in courts of law, with the result in the end that the owner of this grisly façade had to wipe it all out and repaint it in the usual manner. But the judgment had nothing whatever to do with the question of art in regard to street architecture or in reference to public taste, but solely on the ground of damage done to his neighbour by the hindering of the letting of his premises.

In Berlin, and Germany generally, also, though I believe there is Government control over public buildings, and though there are building regulations and legal restrictions in the matter of private construction of buildings, these have nothing to do with æsthetic considerations. Every proprietor has a right to occupy his property with buildings or alter his buildings, but no building is permitted to the damage or the insecurity of the public or the disfigurement of towns or open spaces. In regard to the word 'disfigurement,' in legal proceedings which have been taken to prevent the erection of unsuitable edifices the judges have invariably dismissed the cases, on the ground that matters of taste are purely individual. But I am informed by one of the leading Berlin architects that this defect is felt very much and will shortly be remedied, and counsel is being taken as to the scope of such legal restrictions. This matter, which is under consideration, can scarcely be brought to a conclusion this year.

In Austria I find there is no control over new buildings in respect of their æsthetic properties—only over construction.

In Denmark there is also no control over taste or design—only in construction and other kindred matters; and the lawyers there strongly uphold the unlimited right of an owner to build whatever he pleases, provided it is in conformity with the law.

But the disregard of the public's just claim for beauty of design has been severely censured in the Common Council of Copenhagen; and the opinion expressed there has influenced the magistracy to such an extent that now in most deeds of conveyance whereby the community sells land for building purposes the stipulation is made that the drawings for the exterior of their buildings are to be submitted to the magistracy, who then seek the opinion and advice of the City Architect, and generally decide according to his advice. To this scheme there are many drawbacks. When the community is the greatest landowner, as in Copenhagen, it may affect many, if not most, of the buildings; but even then, when incompetent architects are chosen by the building-owners, and the design is submitted after the sale is completed, very little can be gained by the alteration and correction of unsatisfactory drawings, or by the absolute refusal of them; and their approval, if the alterations, as is usually the case, involve more outlay of capital, naturally raises objections on the part of the building-owners. Were it possible for the designs to be submitted previous to conclusion of the bargain for the land, a much more effective control over the design could be exercised. Lately this has caused a movement for a revised Building Act, which shall have clauses giving power to the Building Commission to refuse consent to the carrying-out of a design that would disfigure the street or place in which it is to be erected. But whether such a clause will be carried is uncertain, for there again the question must arise as to what disfigurement entails or means.

In Italy control of buildings is a municipal affair. Each city elects a council, called the 'Commissione Edilizia,' whose mission is to examine every building project, whether for a new construction or for an alteration to an existing structure, and to uphold the interests of the public from the standpoint of beauty. They have to examine the plans from an æsthetic point of view, and if in their judgment the execution of the project would disfigure the city they are bound to refuse their sanction to it. This committee, the 'Commissione Edilizia,' has also the power to grant exemption from the building regulations in case what is termed the *ornato pubblico* should require it; for instance, in the matter of heights. The Pope's Government has always desired to go one step better to secure improvements in the aspect of the city. Leo XII. granted that whoever should build, or rebuild, or restore a house from designs approved by the St. Luke's Academy of Fine Arts should be exempt for thirty-three years from an increase in property tax—a most just and wise measure for the encouragement of citizens to erect handsome buildings.

In Russia I learn that every governing institution has its own building officer and architects, who are responsible for their buildings. But the latest innovation is that designs for all important buildings requiring artistic skill shall be examined by the Council of the Academy of Art; but until now many exceptions are made to this rule, and in consequence, I am told, barbarism often reigns in many of the buildings.

In America, in New York and Boston, art commissions exist, consisting of persons appointed by the mayors, and of those who hold certain positions at the head of certain public institutions, and the law provides that no work of art shall be accepted by the city government or erected in the streets or public places without the approval of the respective commissions. This applies, however, more to fountains, statues, monuments, and such like, than to buildings, excepting that within certain limits a building paid for by public funds may be altered, modified, or controlled by the commissions.

It seems, therefore, that Italy alone has any real control in the public interest over the artistic design of buildings, and this is exercised by committees in each city. There can be no doubt that in England, as well as in all other civilised countries, great and important steps have been taken of late years in the way of control over building operations in matters affecting the public welfare, such as constructive details, hygiene and sanitary questions, and possibly it is to be expected that these should take precedence over matters of taste and beauty. But the more educated public seems now to be justly discontented with the effect of many of our buildings, and the way in which town improvements and public works are conceived and carried out; and there is no doubt a growing desire that some sort of control as to the æsthetic side of architecture should be exercised by competent authorities, at least in respect of our public streets and places. But how to exercise such a control is a very difficult question. So long ago as the year 1881, when the late George Edmund Street was President of this Institute, he drew attention to a number of flagrant cases of mismanagement in regard to our national monuments, and to the selection and arrangement and laying-out of certain public buildings, bridges,

streets, and their approaches, and then argued that all pointed to the necessity for the creation of a Government Ministry of Fine Arts, which should have a supervising eye and control over all our national monuments and collections, and also over new edifices, city improvements, and rearrangements. The late Lord Leighton stated that much might be said in favour of some scheme for checking the production of ugliness in this country, but feared that many and grave difficulties would beset the carrying-out of any such scheme, and I have reason to believe that one of the chief difficulties he saw was that in the event of such a Ministry being established, and having by chance a dictatorial head, it might eventuate in one man's architecture, resulting in a monotonous effect in our towns. This subject constantly recurring and attracting the notice not only of architects, sculptors, and artists, but also of some of the educated public, seems to show that it is one which must eventually find its way into practical politics; and surely, as it is of Imperial interest and would undoubtedly be for the good of the greatest number, it ought to do so.

Let us consider for a moment some of the points for and against such high authoritative control. Some of the points in its favour would be:—

I. That such a controlling body, composed of fully qualified men of artistic perception, would prevent the erection of new public buildings, such as our Law Courts and the Admiralty, on sites insufficient, not only as regards the requisite accommodation, but as regards æsthetic effect, in the interest of what the Italians call the *ornato pubblico*.

II. That the laying-out of open spaces, public places, and their approaches would be considered by properly qualified and competent experts and judges, rather than, as is often the case, by incompetent persons, often under the orders of uneducated tradesmen who for the moment may fill the seats of our councils, vestries, or local governing bodies.

III. That such schemes as the two bridges at Blackfriars, erected on totally different principles and lines, within a few yards of each other, would be rendered impossible, and, when necessary, proper designs for new bridges, engineering and architecture going hand in hand, would be assured.

IV. That when schemes for new streets, &c., such as the Strand Improvements, lately before the public, or the Northumberland-avenue, or Charing Cross-road, or Shaftesbury-avenue, were under consideration some general plan and design would be arranged, and the talent of our best men obtained, under fair remunerative terms, and they would be responsible to such a controlling power for the proper carrying-out of the architecture of the scheme, and tenants would be unable to erect whatever uglinesses and incongruities their uneducated tastes might prompt.

V. That the taste of the public would gradually be elevated and improved, and the man who wished to disfigure the town for selfish ends would be reprobated, and eventually our town architecture would become the glory of our nation, and architects who were not artists also would gradually cease to obtain work.

VI. That the more education increases, the more a definite control of some sort seems necessary, because posterity has some interest and right in the taste of its forefathers, and we should build not only for the present, but for the future.

VII. That such a control need not mean, under a properly-constituted Ministry or Commission, monotonous uniformity of design—one man's architecture; but the juxtaposition of inharmonious designs, materials, and colours would be prevented, and a general harmony with plenty of variety would be ensured.

VIII. That at present architects' powers are often limited in dealing with strong, self-willed, and selfish clients who have no feeling for the fitness of things and are deficient in taste, and this should not be the case. For example, should an architect refuse to erect a huge stone building apparently entirely supported by plate-glass windows for such a client, he would be punished by losing the work, and some less conscientious person would unhesitatingly do it. Such a thing would, under control, be out of the building owner's power; the architect would be able to say: 'Such a design would not pass the Ministry of Fine Art; therefore it is useless my attempting it.'

Some of the points that might be urged against such a control are:—

I. The politician would probably say this would be collectivism as against individualism, and would interfere with and limit the rights of owners in regard to their properties, and, on the ground that there is no accounting for taste (*de gustibus non est disputandum*), might have some show of reason on his side. But if this were for the national good in matters of taste I cannot see that it would be worse than interfering with freedom in construction and hygienic matters for the good of the public safety and health.

II. It would be urged that it would increase the difficulties of letting land for building purposes; but were it the general rule such a complaint would soon cease, and the inevitable would become the good.

III. At present many Boroughs and Corporations give their architectural work to their Engineer or Surveyor, and therefore would object to this control. Often these men are quite incompetent for the proper carrying-out of such buildings; but as the arrangement saves an architect's fee the public love it, and the ratepayers vote for it, in their ignorance not understanding that eventually they will be the sufferers.

IV. Some architects might raise objections to such a control as involving the trouble of getting their designs passed, not only by one set of authorities on constructive and other matters, but by another body on the ground of *ornato pubblico*. (I use the words for want of an English phrase equally expressive). This might be a serious difficulty to many who profess to be architects without possessing the needful artistic taste. That class would die out under such a *régime*.

V. The ratepayers would object to it as adding to taxation; for such a controlling body of experts should be highly remunerated.

VI. Then, again, it may be urged that it has never been the custom to interfere with personal tastes in regard to building on private property, though in our public streets and thoroughfares. But though custom has been against such a control it may have been merely the antiquity of error, as Cyprian said, in speaking of custom, that the fact of its being the custom is no warrant for its existence. The increasing aggregation of population in large centres needs increasing regulation in all matters of public and social interest; and if customs have grown up of which time has proved the unwisdom, then, however ancient, let them be eradicated.

There probably are many other points both in favour of and against such a control which could be pointed out. But on the whole it seems to me that if the larger considerations of public education, culture, Imperial demands, and our national character and taste as they will appear in the eyes of posterity are weighed in the balance of common sense with the smaller considerations of individual right in matters of taste or property or greed, cost to ratepayers, custom, or inconvenience to the inferior architect, the latter will easily kick the beam. But were such a control established, the question arises, How should such a body be constituted? Clearly there should be a responsible head of the department, were he a Government Minister or not, and he should be chosen not only for his administrative or political capacities, but for his known possession of cultivated taste, large Imperial ideas, and love of art, combined with practical common sense; and he should not have the power to overrule the committee's decision, of which he would be president. It goes without saying that the committee should be formed of the best men amongst our Royal Academicians, Royal Institute of Architects, and other artistic societies. The view of a majority of such a council should be final in all schemes, public or private, which affected the *ornato pubblico*.

For our Metropolis, in which the whole Empire is interested, such a controlling body should, I imagine, be a Government Ministry of Fine Arts; while each provincial Town or County Council should have the right to elect their own committees. I suppose each such body should be paid from rates raised in the district over which they exercised control. But these are details apart from the large general question of necessity for control.

These suggestions, however crudely put my ideas may be, please to understand, I have made solely with the view of eliciting discussion, and with the sincere hope that our governing authorities at no distant date may see their way to inaugurate the new century with some project whereby the future architecture of our country may not be left to mere chance or the caprice of irresponsible individuals; but that under a wise control the architecture of the greatest Empire the world has yet seen may not in the future have to suffer by comparison with that of other civilised countries of the present time, or indeed with that of nations of bygone ages."

Sir John Taylor, in proposing a vote of thanks to the President for his address, said their thanks were due for the trouble the President had taken in obtaining information as to existing rules and regulations in regard to control over designs for public buildings in other countries. He had for many years been intimately interested in one of the subjects (probably the most important) with which the President had dealt—viz., control over the erection of national buildings. The tendency of the President's remarks was towards a mild criticism of the buildings erected by the Government in recent times. While he fully sympathised with the suggestions, he did not admit that, at all events during the past few years, the Government had been lukewarm in regard to the designs of public buildings. It was no doubt true in some cases that the result had not been quite satisfactory; but the reasons for such partial failures were more political than for the want of satisfactory designs; and so long as decisions in matters of this kind rested with Parliament and Parliamentary Committees, there would exist much uncertainty in regard to them. He had much doubt whether the recommendations of such a body as that suggested in the paper would have a better fate than those made by the Office of Works, which had been more than once set aside. In the most recent case the Government had had the assistance of the Royal Institute of British Architects in the selection of the architects invited to erect new public offices, and in taking that course the result had been very much what the President had been asking for. It had to be borne in mind that buildings were required for specific business purposes, and the requirements of the case frequently operated against a design being as monumental in character as desired; while, on the other hand, instances could be given where the architectural treatment of the exterior had been carried so far as to make the building unsuitable for its purpose. With regard to the President's remarks that a controlling body would prevent the erection of public buildings such as our Law Courts and the Admiralty on sites insufficient, the President appeared to be under some misapprehension, as in the case of the Admiralty, at all events, the site was amply sufficient if properly used.

Mr. William Woodward, who seconded the vote of thanks, said he could not agree with the last speaker, who appeared to think that the Committee who considered the designs for the new buildings in Whitehall corresponded to the committee proposed by the President. The committee referred to by Sir John Taylor only applied to the Office of Works, whereas the President's suggestion applied to the whole country. The difficulty in regard to the suggestions of the President was as to the question of taste. He supposed that the committee would not lay down any hard and fast rule as to designs being Classic, Renaissance, Gothic, or Queen Anne; he took it that there was no desire to exercise any control in matters like that. All that would be required would be that buildings should be of as high a form of art as possible in the circumstances. The absence of control was manifest in such a structure as the railway bridge at Ludgate Hill, which interfered so seriously with the view of St. Paul's. Had there been a committee such as that proposed, that bridge would never have been built nor would the addition to King's College, which interfered so seriously with a building under the control of the Office of Works, viz., Somerset House. Nor would Queen Anne's Mansions have been permitted. As to the railway companies, in St. John's Wood, the Great Central Railway could have had a site in Chapel-street, Edgware-road, which would have been ample for its requirements; instead of that they selected and had spoilt one of the finest parts of London, and a committee like that proposed would have prevented the monstrosities which had been perpetrated at St. John's Wood. Last year Sub-Committees

of the House of Lords were considering additions to Charing Cross Railway Station and Victoria Station, and it was very much to be hoped that something would be done to prevent a repetition of what he had referred to at St. John's Wood. He might add a word as to hoardings. There was nothing in the Building Act, or any Act in London, to prevent a man erecting a hoarding so long as it was on his own site, and of making that hoarding permanent, and so disfiguring the street ; and a committee like that proposed might be able to prevent such a thing.

Sir John Taylor said that King's College buildings, where the hideous structure referred to by Mr. Woodward had been erected, were not in charge of the Office of Works, and the Office of Works did all it could to prevent those additions being made.

Mr. William Young said the matter deserved most serious consideration. It was no doubt true that buildings which, to say the least, were eccentric, and which spoilt the whole effect of a street, were frequently to be met with, and seemed to indicate the need for some sort of control. Charing Cross-road, for instance, was a lost opportunity, while the Embankment from Westminster Bridge to Waterloo Bridge (one of the finest lines of street in the world) had been very much spoilt ; there was no attempt at harmony anywhere, and what might have been a magnificent improvement to the City was spoilt for the want of some sort of control. The greatest offenders were the railway companies and public bodies, and if control over the artistic character of buildings were obtained, he hoped it would be mainly limited to railway companies and public bodies, for in London there was a good deal of control over the individual. On the Westminster and Cadogan estates—in fact, on all the great London estates—designs had to be submitted and approved. In competitions, again, there was control, and so he thought, generally speaking, there was quite enough control—an architect wanted a certain amount of freedom in his designs, and the control that he needed was self-control. There was no doubt that architects should consider more than they did the design and character of the building adjoining the site they were going to build on. But a design came under the control of the Building Act and of the Vestries, and if, in addition, it had to come under the control of a minister of fine arts, and had to be altered about to suit that gentleman's requirements, it would hardly be recognised as the product of the architect, and control, carried so far, was undesirable. Instead of a controlling body, why should there not be an advising body? Altogether, he felt it was better to bear the ills we had than to fly to others that we knew not of.

Mr. E. W. Hudson said the key of the whole matter was the question of taste. Who was to decide when even in the same epoch educated people were not able to agree in matters of taste? The President seemed to imply that homogeneity was what was wanted; that idea was carried out in Regent-street, but could we take that as an example to be imitated? Was it not a fact that the charm of mediæval towns, such as Nuremberg, Bruges, &c., and our own cathedral towns, was the variety of elevation one met with? It was quite possible to go to the other extreme. Railway companies were great sinners, and their power was very great. It had been suggested that the bridge at Ludgate-hill would never have been erected had there been public control in design, but he did not think so ; though if commercial interests were not so powerful it might be possible to let questions of taste have more consideration. Some kind of control of public buildings had been exercised in the South of London with more or less success. When the London, Chatham, and Dover Railway extension was proposed, certain opposition was brought to bear on the company by the Dulwich College trustees, the owners of some of the land. The company had to submit for approval the designs for viaducts and stations, and, so far as it was possible to make engineering designs artistic, it was done in this case ; but where there were many small owners, as in London, it was impossible to exercise such control.

Mr. Zeph. King said that in Nuremburg, where he was much struck with the picturesqueness of the buildings, he was informed that when an old building was pulled down it was necessary, in erecting a new structure on the site, that it should be of the same character as the building removed or of other buildings in the street. He had been much struck, too, by the manner in which old buildings were pulled down ; instead of being knocked down, as in this country, without any regard as to the dust that was occasioned, each stone of the building was dropped to the ground by a pully, and a hose was turned on to prevent dust flying about everywhere.

Mr. Hippolyte J. Blanc said he feared, from observations already made, that architects would be the most difficult body of men in the country to control. He looked in another direction for a cure of the evils drawn attention to by the President. The President had said that those evils partly arose from a want of knowledge, a want of interest, and a want of control. It was true that what we knew least about we had least interest in ; and in his opinion the best cure for the evils referred to was to educate the public. Given the knowledge and the interest, the want of control would often not be necessary. All who had travelled on the Continent must have recognised the effect of control, in such a city as Paris, for instance. No one wished to see London, or any other city, with such monotonous frontages as those of the Boulevard Italien and the Rue de Rivoli ; the beauty of architecture consisted in its variety. What was wanted was the education of the architect, and the true appreciation of the architects' works by the public. He recognised that control was required, but he would make that control not too hard and fast—the control, in fact, by suggestion by a competent body of architects and laymen. He had always felt that laymen saw matters of architecture in a totally different light from that in which architects did ; but architects were indebted for intelligent suggestions from laymen. The Edinburgh Architectural Association had from the commencement been composed of architects and laymen, and to those laymen the architect members had been deeply indebted. By attending the meetings of the Association, and by travelling about the country with them, the lay members had become interested in what they had seen, and had in that way got an architectural education and had become intelligent members in matters pertaining to architecture. He did not like the use of the word "control" ; the committee should be a watch committee to make suggestions, and it should be composed of architects and laymen. He did not include painters, for, with all respect, he did not think a painter could judge from an architectural drawing what the ultimate effect would be, and he had always refused to submit his designs for public work to the eye of a painter. With regard to control it was very necessary in laying out new streets, &c., and in regard to bridges, as to which there was no greater eyesore than the huge and ugly bridges which were put up. On the Continent they knew better how to do these things. The charm and the variety of the bridges on the Seine and the artistic skill expressed in them was very great. In Edinburgh they had the North bridge, as to which he would ask : Who made engineers artists? Unless the work of the engineer was clothed by the artistic skill of the architect it was generally no credit to any one.

Mr. Day (Worcester) said he thought that control in design would be very beneficial to the community at large. He was very pleased that the London County Council had been going somewhat on the lines suggested by the President in the new street from Holborn to the Strand. He felt with the last speaker that the education ot the public in architecture was necessary, and that might be, to some extent, achieved by art and technical schools, architectural and archæological societies, and in branches of the Institute. He quite felt that in all public schemes and improvements it would be a distinct advantage to secure the support and co-operation of various corporations and local bodies with the Institute. The scheme which the President had foreshadowed would be looked upon, he feared, by the ordinary layman and many public bodies as an undoubted interference.

Mr. Kempson said he thought that a council of advice would be better than one to dictate.

Mr. Joseph Smith (Sheffield) said that from the remarks made it was clear that no one was satisfied with the present state of things. While there was a good deal of control in matters of construction by Local Authorities (which in many cases was felt to be irksome), yet in this matter of æsthetic treatment of design architects were left very much to themselves, with results that were not satisfactory. He felt that there was an urgent need for a different order of things, and that the scheme suggested by the President might usefully be tried. To put the æsthetic control of design in the hands of Local Authorities as at present constituted would be a great mistake. Up in the North it had been made a condition that elevations should be submitted for approval, and some Local Authorities had approved monstrous designs.

Mr. Arthur Cates said he had heard the paper with very great interest, but he felt, however desirable the aim, it was somewhat Utopian in the present circumstances. Mr. Young had shown that in London and elsewhere a certain amount of control of design already existed. One of the points which had apparently existed in the mind of the President and had caused him to wish for more efficient control, appeared to be the manner in which recent public buildings in London had been erected. There appeared to be exceeding good ground for that feeling. But the President had proposed a Ministry of Fine Art which should have absolute power in controlling designs for public buildings ; that would meet with considerable opposition from two sources : one would be that which was generally known as Treasury control as regards public buildings, and the other would be what the legislature was exceedingly fond of, viz., Parliamentary control. The control of the Treasury related to expense, and led to the cutting down of buildings to the requirements of cost, and was influenced by the cry : "Will Parliament vote the money?" not : "Is the building a good one?" If the history of the public offices in Downing-street could be written from the commencement it would be a monumental history of folly, waste, and extravagance. The same could be said of the Law Courts, and the same, though in stronger terms, with regard to the Admiralty buildings. The whole principle which governed the control and erection of public buildings in this country might be characterised as the principle of wasteful economy and profligate parsimony which had resulted in the end in reckless extravagance and great waste of the nation's money. He agreed with the apology of Sir John Taylor for the Office of Works ; for they were not responsible for the failures which had resulted. As regards buildings on private lands and buildings on new sites in London, there was an important and, he thought, maleficent influence at work. The majority of buildings put up in London were not erected by those about to live in them, but by land speculators who got hold of the land with the intention of making as much money out of it as they could. They employed an architect to put up what they called "remunerative buildings," and they created an improved rent on it and sold the improved rent, at a considerable gain to themselves, to corporations and public bodies who, in this country, by their articles of corporation or charters, had been, unfortunately, restricted from building themselves, and so had to fall into the hands of these land speculators. It could not be supposed that the architects employed by those speculators were men who would take the same interest in the adornment of the Metropolis as those who might act for great corporations. As to railway companies, it was much to be regretted that there was not some stringent condition which would compel them in suburban districts to carry out their works in a suitable manner. It was a great scandal that those who desired to produce a more satisfactory result should be met with the statement : "These plans conform to the requirements of the Board of Trade." If the companies conform to the Board of Trade requirements, a Parliamentary Committee would not intervene, and it was only in cases where great pressure could be brought to bear on the companies that anything like reasonable designs would be extorted from them. The interests of the State were largely involved in the maintenance and protection of buildings of a proper and fine character.

The President, in reply, said he was glad to have heard the various suggestions made, but he thought that both Sir John Taylor and Mr. Cates had misunderstood his meaning. He had not intended to reflect on the management of the Office of Works or on the new Government buildings, except to suggest the insufficiency of the sites, though perhaps, as to the Admiralty buildings, he rather had in his mind

the æsthetic effect of the building. But there could be no doubt that the Law Courts were built on an insufficient site, and, added to that, the fault was aggravated by the insistence of the Committee, who probably did not understand planning, and who adopted a plan which had a central hall, which was practically useless, and therefore wasting space on an already insufficient site. A controlling body of competent men would have pointed out the defect in the plans in the first instance, though he did not advise the control of public buildings so much. Of course, there had been a certain amount of control in the designs for the new War Office and Government Offices, and the Government had tried to get good designs, while the architecture had been very carefully considered, and he hoped that the result would be satisfactory. What he had specially referred to was the fact that any one could take a site in one of our public streets or places and build abominable architecture, which had no harmony, proportion, or beauty, and regardless of the adjoining architecture which might be beautiful or good. He did not think his scheme would result in one man architecture, and that was why he proposed a committee of men of common-sense and with artistic perception. He did not see why buildings should not be diversified in character and yet harmonious, but by his scheme we might avoid having a fairly nice design in stone spoilt by some wretched erection in brick. As had been suggested, the Committee should be an ordinary one, but unless it had some power to insist in certain cases he did not see the use of it, for architects were generally rather inclined to insist themselves. But many buildings were put up without architects — or at all events their names were never heard —and it was in such cases that the Committee could most usefully exercise control. As to educating the public, that took a long time, though no doubt that was the real means of effecting a change in the architecture of our streets and towns. The Institute was doing its best by means of its examinations to promote the education of the architect, and he hoped and believed that the influence of many architects on the public was considerable. But until the public were educated, were we to go on as we had been, letting our streets be an eyesore to the educated passer-by? Could not some steps be taken to prevent the production of ugliness in towns? His ideas had been put forward as suggestions, and he had in his mind a building only just erected in one of our streets which was a disgrace to the street. That it was possible to put up such a building adjacent to some rather fine buildings was monstrous. As to Mr. Day's remark about the London County Council, the action of that body in regard to the designs for the new street, Holborn to the Strand, was praiseworthy inasmuch as they had tried to get a grand scheme, but what was the use of a grand scheme, and what was the use of obtaining designs from architects, if individuals were to be allowed to put up what they liked, regardless of the scheme? Practically, the London County Council would not guarantee to use the designs.

The meeting then terminated.

Conversazione.

The *conversazione* given by the President of the Institute at the Guildhall on Tuesday evening was very largely attended and may be considered to have been a complete success. A long train of guests were received by the President and Mrs. Emerson in the great hall during the earlier part of the evening; there was a band in the hall and some vocal music in the Council Chamber. The designs for the Old Bailey Sessions House were on view, and also a large and most varied loan collection of architectural drawings contributed by many of the leading architects and architectural artists of the day, at the special request of the Council of the Institute. Refreshments were liberally provided, and the *conversazione* afforded an occasion for many members of the Congress to meet and renew old acquaintanceship.

On Wednesday morning, at the third meeting of the Congress, papers were read on

"*The Collaboration of the Architect, the Painter, and the Sculptor.*"

FROM THE POINT OF VIEW OF THE ARCHITECT.

The first was by Mr. E. W. Mountford, who remarked: "For some considerable time it has been the custom at meetings of the Royal Institute of British Architects, when we are honoured by the presence of eminent representatives of the allied arts willing to give us their valuable opinions upon matters of mutual interest, that an architect should produce a kind of brief preface or introductory note. This explanation is undoubtedly necessary to account for my having ventured to accept the invitation of the Congress Committee to address you on a subject upon which I have no kind of claim to be considered an authority.

The collaboration of the architect, the painter, and the sculptor is not only a matter of great importance, but one which is daily becoming more and more deserving of our consideration. There is reason to believe that the public—or, at least, the more educated part of it—is awakening to the fact that good art is both desirable and attainable in our buildings, and that even though this may increase their cost the money is well invested. The art of architecture is not to be considered as dependent for its perfection upon the assistance of sculpture and painting, as some would have us believe. It is well known that many of our most admired ancient buildings are destitute of either, and the work of our greatest living architect is conspicuously free from any such assistance. Colour of the most beautiful kind may be obtained from the materials used in our work, and it is quite possible to invest buildings with some interest and richness of effect without calling upon the sister arts. But we shall probably be perfectly agreed upon the great desirability of inviting the aid of our brethren of the brush and the chisel to beautify and embellish our buildings whenever it is possible to do so—which means, in the first place, when it may please our clients to provide the means. This is still one great difficulty, because we must have really good sculpture and fine painting, and, like most other good things, these are expensive. It is the unhappy fate of most architects to have their designs and intentions very much cramped or cut down by the want of the necessary money to realise them; and we have to be content to keep our buildings absolutely plain because bad pictures or bad carving defiles a building, and must be shunned like other sins. Supposing, however, that we have been entrusted with the erection of a building for which there are ample funds, so that we may with a good conscience invite an eminent sculptor and an eminent painter to help in making it as beautiful as we know how. Then we begin to understand that there is some enjoyment in life after all, and proceed to our work with even more than the usual enthusiasm. At the earliest possible moment—that is to say, so soon as the first rough sketches are completed—we shall desire to consult our chosen fellow-workers; and from that time until our joint creation stands accomplished, the more frequent our intercourse the better for our building.

It must not be forgotten that the building is the thing, and the architecture is not to become a mere background for the painting or sculpture. They are means to be employed for giving additional interest and beauty to the building, explaining its purposes, its uses, and its history or the history of its builders, becoming part of the architecture itself, and not to be thought of otherwise.

The work of the sculptor and painter in relation to a building bears some resemblance to the illustrations of a great book, of which the architect is the author; and just as the illustrator of a book must make himself acquainted with its contents and the intentions of its author, so must they enter into the scheme of the architect and help to make his meaning clear. As some books do not require illustrations, while in others they are of great importance, some buildings are complete without the painting and sculpture which in others strongly appeal to people who are quite unable to appreciate the architecture, and take no interest in it. The resemblance is certainly by no means perfect. An architect in consultation with the sculptor and painter will provide in his buildings fitting opportunities for their work, plain spaces for frescoes or sculpture, or niches for statues, and will, if necessary, arrange or modify his detail to meet their views. Harmony of purpose and oneness of interest between all three artists are absolutely essential, or the work must suffer. It seems to me possible that the architect and sculptor may have more in common than the architect and the painter, dealing, as they both do, primarily with form; and though colour also enters largely into the work of an architect, it is not usually the colour of the painter. In any case there must be harmony of style and purpose, and not less essential are breadth and simplicity. These latter qualities have been so much spoken of, written about, and discussed lately, that one feels it necessary to apologise for again mentioning them. But important as they are in all design, they are even more so in connexion with this subject, so they must come in again. How many buildings has one seen spoiled by over-much carving, often poor stuff that has no meaning, except to cover the poverty of the architecture; but even of good work it is possible to have too much upon a building. It is not difficult to spoil an interior by too much colour decorations, be it painting or mosaic.

Without complete sympathy with the architect, a painter may, no matter how great his skill or good his intentions, do much to spoil a work of architecture, either by concealing features the architect may wish emphasised, painting out the construction as it were, or emphasising others which the architect would prefer to have left in modest retirement. The appearance of mouldings may be quite altered by their treatment in colour, or spaces, which were necessarily left plain for the desired architectural effect, may be painted with a design, possibly very good in itself, but quite undoing the intention of the architect.

It is not for me to suggest here anything as to the manner or methods of the painter. Every architect will have his own views as to the decoration in colour of his own building, and would fully explain them to the painter entrusted with the work. Very possibly the said views may be quite mistaken, and the painter, if able to convince him of this, is rendering him a very good service. May I say that to me the pictorial treatment of a flat ceiling seems a great waste of sense and skill? It is not usual in good society to lie upon the floor, and yet this is the one position in which a ceiling so painted can be properly seen. Even then the positions of any figures in the painting are impossible and absurd, unless the painter has represented them flying in mid-air, with the soles of their feet and other portions of the body not usually seen made unduly conspicuous—which treatment, however skilful, is scarcely pleasing. It is hardly necessary to maintain that a painter, by bringing atmosphere into his mural work, treating his subject in a thoroughly realistic manner, simply destroys the architecture. Happily, most English painters understand decorators' work too well now to do such a thing, except in specially prepared panels. A considerable amount of conventionality must be employed. With the sculptor the architect has to discuss, not only the subjects of his work, but the materials, the scale, the amount of relief, and the jointing of the stone. The small scale models which the sculptor will prepare may be most usefully extended to embrace as much of the surrounding architecture as possible, and the architecture will probably greatly benefit if this course be followed.

Sculpture I regard as being much more a necessity for important buildings than colour decoration, which is rather a luxury seldom to be attained. Moreover, being much less appreciated by the general public than painting, the cost is less. Probably to every hundred people that are 'fond of pictures,' less than twenty take any interest in sculpture, and certainly not more than five care anything about architecture. And the Royal Academy, as well as her Majesty's Ministers, exactly reflect public opinion in this respect, which accounts for many things. There is one small point with respect to the use of sculpture, which is worth a little consideration. It is not unusual for a statue, large or small, to be placed upon the summit of a tower or the apex of a lofty gable, but the result is often not happy. A plain moulded terminal would generally look better and cost a great deal less, while the money so saved could be used with much better effect upon some less elevated part of the building. My objection does not apply so much to figures placed along the parapet of a building of moderate height, which can be seen only from the front, although even here a background of masonry is better than one of sky. But isolated figures at a considerable height from the ground nearly always look unsatisfactory from at least one point of view.

As regards the use of both sculpture and coloured decoration, I have a strong suspicion that many of the old buildings of Italy and

elsewhere that we now so justly admire must have aroused quite different emotions in us had we seen them when new. In conclusion, may I be allowed to express my appreciation—which is shared, I am sure, by all architects—of the manner in which Sir William Richmond referred to the art of architecture in his recent speech at Bath? It would be well for all kinds of art if his opinions were more generally held, and one may well wish that his fellow Academicians should read and understand all that he said."

FROM THE POINT OF VIEW OF THE PAINTER.

Sir W. B. Richmond, K.C.B., R.A., followed, dealing with the subject from the point of view of the artist. He said:—"A paper written to be read in ten minutes should, I think, be both terse and suggestive; it certainly cannot pretend to be exhaustive. Its object should be the promotion of intelligent, even warm, discussion. If this paper is abrupt in its transitions as well as in statement of my views the foregoing reasons must be my excuse for such defects. We all desire closer union than now exists between the three great arts, as well as a more intimate conjunction with them of the lesser arts and crafts.

It is the wish of all of us that the spirit of the true artist should preside over all our labours, great or small—a spirit which induces spontaneity of design, and which prompts sincere endeavour to carry it out with clearness, which shall be the expression of ourselves, and therefore with style. Style is what is wanted, and is so often absent, the impression of the mind and hand of the artist. Of 'styles' most of us weary; their use, more often than not, implies absence of invention, and is but an attempt to revitalise corpses. Rather than follow them ought we not to be bound by the requirements of our age?

The collaboration of the architect, sculptor, and painter ought not to be difficult. To be successful the architect should not interfere with the sculptor or painter, *qua* their designs; this he will not need to do if his style is his own, for if they are true artists, all of them, they will give and take according to the requirements of their arts as well as for each other's art. They will each respect the other's province, that of the architect as the designer, or builder (as Wren is named upon his tomb), of the structure, of the sculptor as the designer and carver of effigies, ornament and its attendant parts, of the painter, the designer, and executant of the pictures, their borders, &c., and their colour scheme. But both sculptor and painter must give way to the architect upon matters of scale, of proportion of part to part, so that their work shall be harmonious in scale with his; of quantity, of projection, whether in the round or relief, of the fairness or depth as to tone, of the painter's scheme. So will they labour in harmony. While architects insist upon 'styles' they will get no first-rate sculptors or painters to aid them or to work with them. For the adornment of 'styles' they have to continue to go to 'firms' where they can be provided with as many shams as they require, all quite lifeless and hopelessly out of touch with the movement of this, or for the matter of that with any period, because they do not reflect it. As long as 'styles' are abjectly adhered to art, must remain dead! No artists, as far as we know, imitated the work of their predecessors; they wrought in the vernacular of their environment. In recent times Viollet-le-Duc, admirable antiquarian and voluminous writer, has given an example of the inevitable failure which must attend upon 'styles' of decoration in many of the churches of France. Witness his cartoons in the Louvre and his wall paintings in Notre Dame, about which nothing can be said but that they are wholly uninteresting.

Santa Maria Novella in Florence is a nest of anachronism according to the modern standard. The wall paintings there by Cimabue, Gaddi, Giotto, and Ghirlandajo, and by later painters also, are side by side. Ghirlandajo did not paint in the style of Giotto; he painted as his period dictated. The west circular window contains glass of the early fourteenth century; the west window is late fifteenth in the style of the period. Side by side are monuments which date from the fourteenth to the seventeenth centuries in the style of the period. So the church as it were breathes history from its walls; its monuments and paintings are sincere demonstrations of their authors' originality and spontaneity. This is one instance out of hundreds which might be brought forward that proves the universal law that no art is really valuable which does not emanate from the spirit of the period which gave birth to its author. It is because of its sincerity of purpose that art interests us. Fancy Ghirlandajo decorating the portion of the church assigned to him after the manner of Giotto, or Giotto in that of Cimabue, because Cimabue painted on the walls of the church at the time of its erection; they would not, could not have been such slaves to pedantry.

As soon as architects design original buildings—which, by the way, here and there they do, irrespective of severe canons of proportion and orders, but structurally consequent and individual—they will find plenty of sculptors and painters to work with them; but as long as they design in styles no original men will be slaves to them; they must continue to get the adornments for their structures from 'the trade.' Is not it a mistake to specialise early? The young painters—indeed, the old ones also—know nothing or little about architecture; nor is the young sculptor made aware of the position that his work ought to hold in relation to spaces. Neither does the architect get a chance of working in conjunction with sculptors and painters, who should be his colleagues in his earliest days of training; they are brought up separately, and they remain separate; consequently neither their interests nor sympathies are current.

Finally, of course, the architect is the responsible person; therefore he should be a thoroughly equipped artist. Would it not be possible to avoid too early specialising? How few architects there are that know anything about colour! How few painters are even indirectly interested in architecture, and how few sculptors learn to be an attendant upon architecture! And what a loss it is to each that he is so ignorant of his sister arts!

The great men of past times were rarely specialists. Every one knows that Giotto was painter, sculptor, and architect. So was Raphael, so was Bruneleschi, so were Michelangelo and Leornardo. Pheidias was the son of a painter, and was educated in that craft; Ictinus was a sculptor as well as an architect. I suspect they worked harmoniously; and no doubt whoever designed the colour scheme of the Parthenon did so in conjunction with his colleagues.

The well-equipped designer is able to cover a large field of action. If he can design in one material why not in another? None of the techniques are so enormously difficult, either of building, carving, or painting, that they cannot be acquired by patience, given the artistic temperament. It is the artistic use of techniques acquired by experience which succeeds, or the reverse, in exact relation to the quantity of intelligence and judgment that have been put into it.

Our age is one of 'harking back'—archæological more than creative. Certainly this applies to architecture. But in the arts of painting and sculpture such a term applies with far less accuracy. The best work being now done in them reflects the spirit of our time. Do the majority of buildings do that? Does the Tower Bridge reflect our time, for example? When architects do so the sculptors and painters will almost automatically come into touch with them, and the crafts also with them.

To reiterate: No original designer, painter, or sculptor would execute in the thirteenth, fourteenth, fifteenth, or sixteenth century style to satisfy the pedantry of an architect, though if he had made an *excursus* into any of those styles he might be able to do so; but if he did, his work *qua* art and style would be quite valueless. The sculptor makes statutes, the painter makes pictures; they do not design them only. Should not the architect make buildings? And, just as the painter and sculptor learn anatomy, should not the young architect be apprenticed to a builder, that he may learn the anatomy of his art and become in the highest sense a builder? I confess to thinking that art education cannot be commenced too early or be too broad and inclusive. Specialism would follow according to the bent of the student's capacity. Should not a young architect practise decorative painting and sculpture up to a certain point? It could do him nothing but good. And the same principle should, I think, apply to the education of sculptors and painters; early instruction concerning plan and structure could do them nothing but good. Advanced students should, I think, be encouraged to collaborate. Given a model designed in conclave, made by the architect, to be sculptured by the sculptor and decorated by the painter, how interesting such efforts would become! What a stimulus they would give to the three arts! Each student having thus become conversant with the arts of his colleagues would be in a position to criticise as well as to appreciate them. The three arts would thus grow up as it were together; they would not be strangers to one another. The great mother of the arts, architecture, would take to her children again, who have separated from her, as she has from them, to their and to her privation. The purist may imagine that Greek temples, early and late Gothic churches, or even early Renaissance, were bald and colourless, but they were not; we know, on the contrary, that they were highly coloured and decorated, probably with what we, with love of faint anemic tints, would call crude colours. And modern buildings may be decorated with strong colours; why not? Crude colour soon tones down if the shades are harmonious. Purity does not reside only in form; form is not its only exponent. Colour can be rich, splendid, strong, and yet be chaste. Chastity is not weak and anemic, it is the sign of vigour and strength. Sculpture may be coloured even vehemently; painted woodwork, marbles, gold and other metals can be introduced lavishly without one jot of purity being injured. But such a revival cannot come all of a sudden; we have to become used to experiments: these may be uncommon, unconventional, and as such they must take time to become established in and recognised by the public mind.

We have the material, minds and matter, for the most rich and splendid work, but upon account of the divorce of the three great arts and of the crafts from them more or less that material is only serviceable within a narrow range and under unduly restricted conditions. Once get young students, architects, sculptors, and painters into touch with one another's art, and a really vital school will spring up with astonishing quickness. Architects will then take their proper position as artists and sculptors and painters with them in conjunction. Pedantry and its near relative dulness will cease to exist; painting will no longer be considered as 'The Art,' and the other two as minors. To the attainment of this end we should, I think, struggle, an end which means union, wherein there is strength, share in the struggle and help, not hinder, each other's efforts. It is not precedence that any of us desire, but concord, mutual progress, and unity. We are individually striving to render England more beautiful; let us try to do so collectively; let us strike out for freedom, not licence, but freedom based upon the only sound foundation, sincerity, combined with knowledge of the various branches of what after all is but one art."

FROM THE POINT OF VIEW OF THE SCULPTOR.

The third paper was by Mr. E. Roscoe Mullins. "It may well be," he said, "that a sculptor will approach the subject of the collaboration of architect, painter, and sculptor from rather a more stringent point of view than would a painter; for whilst a painter can and does develop his art alone, independently of the other arts, requiring only house-room, his art not suffering if so separated, it is otherwise with sculpture. A sculptor, I maintain, is only truly working out his art in its highest conception when he is working in unison with architecture, and is controlled and inspired by its conditions and limitations; and in so far as the willing hand of architecture is not held out to sculpture, the art suffers. The natural and rightful place for sculpture is in connexion with or upon buildings, which it should ennoble and beautify by its presence; the treatment of sculpture should depend upon the particular lighting that the chosen position and the surroundings would give it, and much of its shape, arrangement, and effect must be due to the space allotted for its filling. This is not, I know, the popular view of the art, but that it is the true one a glance at the past great periods would prove. I can only, in the short time allowed me, give this glance, but detailed inquiry would bear out my statement. There is hardly a work of sculpture in the British Museum that is not decorative in the true sense—that is, work that was applied to buildings, executed for buildings, of which the beauties can now only rightly be appreciated by recalling the buildings they were designed to decorate. In the days of the Renaissance it

was equally so: Michelangelo, Donatello, Luca della Robbia, Ghiberti, all collaborated with architects, and their best work was done for architecture. In the Gothic days, too, this truth is equally apparent, which a visit to the chapels and tombs at Westminster abundantly proves.

It is only in these days that the direct union has been lost, and the art has been conceived as standing alone—*freistehende*, as the Germans say—and, like painting, thought to be free and independent. Nothing has fostered this false view so much as the prevailing custom of exhibitions, and I must also add museums, for in both we see sculpture isolated, in no connexion with the place it is designed to fill. In exhibitions we accustom ourselves to a standard of isolation, forgetful of the main purpose of the work—that is, its surroundings and the causes of its shape and treatment. This aspect is lost in the æsthetic admiration of the work alone. Decoration in former days did not mean a mere filling up of space by some stone carver or so-called monumental sculptor, but rather the representation by the nation's most gifted sculptors of the stories and legends believed in by the people, and executed in such a manner as to enhance the beauty of their national buildings, and make complete and explain what would otherwise be bare and unintelligible. This was decoration in the past. How differently in our own day is decoration understood, when it has too often come to mean merely endless repetitions of meaningless ornament, as suitable to a tavern as to a church!

To show the evils of backsliding, we may note the tendency of sculpture, when separated from architecture, in the popular form it takes at exhibitions, to develop into a species of bric-à-brac and *objets de virtu*—statuettes rather than statues, coloured combinations of assortments of stones and jewels, surface treatments of realistic skin-folds, and often ugly renderings of Nature—anything, in fact, but work possessing the properties of true sculpture, which should depend upon breadth and knowledge of light and shade, and simple massing of form. In our Royal Academy the influence of the painter is felt on sculpture instead of that of the architect, and the result is scarcely satisfactory. It is natural that truthfully-modelled surfaces, literal renderings of Nature, and combinations of colour, would have more weight with a painter than with a sculptor; but in sculpture such tendencies conduce to realism, and the closer the imitation the less is the art displayed. Too often the work, when done, is only suitable to become part of a rich man's collection of isolated treasures, that only the few therefore can possess, rather than fitted to belong to the nation as a whole, as it could do if it were executed for public buildings.

There is one other evil I should like to mention to which the sculptor is prone if he is detached from architectural control, and that is making the search after beauty as his one aim. To me it always appears that no theory that has been advanced has done so much to destroy individuality and original talent as this loadstone of beauty. An artist who is seeking for beauty alone is as a man seeking for happiness—a desirable end to attain, but never attained by directly planning or searching for it. And it is the same with the attainment of beauty in sculpture; the end is only reached by having some more definite object in view, while the vague search for beauty only leads to imitation and trite conventionality. Let the immediate purpose of the work, however, be simply the desire to tell a story in the best possible way, and to adapt it to the place that the work is to fill, then the element of beauty will still possibly be there, without striving especially for it, and, at any rate, the work will be stamped with individuality.

Perhaps the time when least attention was paid to architectural decoration was at the beginning of this reign, when sculpture was represented in this country by Gibson; and his work shows the effete result of a one-sided striving for beauty that ended in the neglect of Nature and the adoption of a pseudo-classic treatment, uninteresting and unmeaning to us Englishmen of this century. Since that time we have advanced in the right direction, and some of our best sculptors' work can be seen on buildings, forming part of a whole scheme and helping the purpose of the buildings for which they were intended. But though we have moved in the right direction, there are yet misconceptions to remove before sculpture can be fully applied in its true field as the co-mate of architecture. This is brought home to us when we note the one form of sculpture that we may say is fairly tolerated in England—that is portrait sculpture. Supposing we accept this form as characteristic of the nation—and I fear we have not yet risen to things higher—can we say, except in a few instances, that we have succeeded in portraying the individual man? I think not. The very size in which we depict him—I refer to outdoor statues—is sufficient to prevent the sculptor from giving an individual rendering of his subject. He is content if he succeeds in getting a portrait of the face, while to the figure he gives general classic proportions, so that we have individual heads on our statues that would fit equally well on any other statues' bodies and legs. Now, if these portrait statues had been designed to fill niches or stand in courtyards, or to be placed in front of buildings, of which they would then form part, the size of the statue could be diminished, and attention given to the portrait of the man as he is, or was, not merely in face, but in figure. I maintain that no portrait statue should look more than life-size; it ought, that is, not to strike the observer as abnormal; the extra size that is given should be due only to the necessity of the surroundings and the height at which the statue is placed. I think the only form of sculpture that will stand the test of isolation is work with strong action, as some equestrian statues, and ideal work that is not subject to the restrictions of modern dress; but even these are improved by a background at least of trees. This association with architecture would open other fields where the sculptor's art could assert itself, and where the nation's desire to perpetuate the memory of her great sons could be encouraged. For instance, a Hall of Heroes, a Walhalla, would be far more interesting and instructive, where the deeds of the great could be recorded, and where the whole building could be devoted to that end, than is the prevailing custom of thrusting statues, as we do now, into Westminster Abbey and other noble buildings not designed for them; where they are void of meaning, and destroy instead of adding to the beauty of these buildings. In a modest way, too, I think there is room in our cemeteries and churchyards for a happier union of the two arts. Most of the sculpture we see there, besides being commonplace in design, is often vulgarly obtrusive; yet I think a cemetery should be a home for good sculpture, and it could be made so if the sheltering hand of architecture were there, too, to give restraint—a necessary element and especially appropriate in a place hallowed by the association with our dead.

In so short a paper it would be out of place to enter into matters of detail, and I think, even with unlimited time at my disposal, I should hesitate before laying down any rules or restrictions as to methods of work or treatment of subjects. One might with equal right prescribe the style in which an architect should build. The only two conditions I consider essential are that the sculpture, whatever its character and wherever placed, should be seen in its entirety, and the form the work takes should be the suitable one for the position; not, as in the case of the frieze that runs round the Athenæum Club in Pall Mall, and again over the gateway at Hyde Park Corner, which are copies of the well-known Panathenaic frieze of the Parthenon, but which are placed under quite different conditions of light and position than those that guided the architect and sculptor of the Greeks in their choice of the style of relief.

In decoration the sculptor should assert his own individuality, and not be bound by effete laws of design; there is no other golden rule to follow to ensure interest and vivacity, and interest and vivacity are two of the three elements necessary to all true decoration. The remaining element is the sense of restraint alluded to before; for although the spectator should be conscious of the expression of movement, yet he craves at the same time for repose, and this is added by the restraining force of architectural surroundings. This restraint, instead of hampering the sculptor, really brings out the strength of his art, and shows its manifold capabilities of adaptation to required ends.

To sum up, I have intentionally dwelt upon the advantages accruing to sculpture rather than to architecture in this desired union of the two arts, and have left the gain that would belong to architecture to inference only. This I regret the less, as that side of the question has been fully entered into in the wider treatment accorded by the reader of the previous paper. The points I would insist upon are these: that it is against the best traditions of the past to divorce the arts of architecture and sculpture; that this divorce leads to a low estimate of sculptural decoration, as well as to a want of direction and meaning in the sculptor's work; that gallery exhibitions of isolated works belittle the art of sculpture; that portrait sculpture is shorn of its character and truth, which can only be truly given when incorporated in a wide scheme of decoration. For these reasons, therefore, I maintain that a healthy demand for sculpture and a capable and satisfactory development of the art can only be attained by returning once more to the traditions of the past and effecting a closer union of the kindred arts—architecture and sculpture."

Mr. H. Selwyn Image remarked that they had heard three short, but extremely suggestive, papers by three eminent artists on a subject of the highest importance. The compliment had been paid him of asking him to open the discussion. He appreciated the compliment very keenly, and he frankly confessed that this Congress seemed to him to be of very great importance. The real importance of the Congress, if he might say so, seemed to lie in the ability of the readers of the papers and of the speakers who followed to realise the great fact that they now had the representative body in England of the great mother art calling into its councils artists of all kinds to assist it with their advice. And the Royal Institute in this Congress was insisting in the strongest possible manner on the immensely important principle which had been so often forgotten, and for which some of them had for many years fought so strenuously—he meant the great principle of the unity of the arts. The Royal Institute, in taking this action, had done something to bring about the union of the arts. Now the union of artists, and the great principle of the unity of the arts, did not mean in the least that they were to sink their differences and to become of one mind. Such an event, even if it could be arrived at, would be most undesirable; but it was a great thing, indeed, to meet men in the flesh, to see people whose work they knew, see what they were like and talk with them. It was astounding how many prejudices and misunderstandings were got over in that way, and how much their own views underwent change when they met people in the flesh and face to face. In connexion with this he always thought of the old story of Charles Lamb. Somebody had been running down a certain gentleman whom he would call Mr. Brown. Charles Lamb got into a furious temper, exclaiming, "I hate Mr. Brown." The gentleman replied, "You cannot possibly hate Mr. Brown—you do not know him." "Know him!"—exclaimed Lamb—"How could I hate him if I knew him?" That was in his, (the speaker's) view, an admirable way to put it. He thought artists would not—he would not say hate one another—but misunderstand one another in the way they did if they only met together. Hence it was a great achievement that the Institute had brought them together. It was impossible for there not to be some division amongst them, and it was impossible for there to be one prevailing style, but it was possible for them to get rid of all misunderstanding, and to cultivate catholicity of tastes and tempers. In reference to this there was an admirable saying of Pope, who, writing of a certain nobleman, to commend him as an authority on matters artistic and literary, remarked that he had the admirable taste to admire all things which were good.

Mr. Heywood Sumner said he agreed with Mr. Image that the three papers were very suggestive and very helpful in that they breathed the spirit of unity and concord. First, they had the architect standing up and holding out both arms, and they saw on one side the painter and on the other the sculptor rushing up to be embraced, while over them hovered Mr. Image as the angel dropping flowers of peace. For himself he (Mr. Sumner) appreciated extremely the hearty welcome that had been accorded to the young arts by the mother art. Beginning with Mr. Mountford, he was constrained, however, to remark that he had heard many architectural friends speak upon the subject of the unity of

the arts and about working together, but they scarcely if ever finished off except by saying: "Of course, the architect is quite independent, and can, if necessary, stand alone." Mr. Mountford said this in a most kindly way, but he did say it, and he took up the gauntlet. It was perfectly true that the architect could stand independent of the painter or sculptor, just as mother earth could stand independent of growth and life of any sort. Sometimes it seemed to him that if the architect had created the world he would have stopped in the middle of the third day, with the excuse that he did not want the sun—that would bring on too much colour; nor fish, nor birds, which we could do quite well without; and man and woman, because they would bring about frightful confusion. Seriously speaking, was not this position of the architect quite unfair? It seemed to him that if they looked at the nobler manifestations of architecture in the past they would see it was a real mother that did extend her arms like a mother should. Mr. Mountford, on the other hand, would call in the painter and sculptor, but he would keep them in their place. Mr. Mountford seemed, indeed, a little afraid of colour, but Sir William Richmond literally revelled in it, and Mr. Mullins did not, with Mr. Mountford's flourish, say that the sculptor should be independent; on the contrary, he desired him to be dependent. In that he (the speaker) cordially agreed with him, likewise with his remarks about the exhibition and the Museum. With all their admiration for the great work that had been done by the Museum they must always remember that what work they saw in it was applied work—that is, they were the flotsam and jetsam of centuries, and they had found at last a home in a rather solemn sort of cemetery, the Museum. He thought that the present attitude towards art and works of art had to a certain extent been fostered by museums. That was the very danger. He, however, did not think he could follow Mr. Mullins when he spoke about the statues in Westminster Abbey. They represented the century in which they were erected, and the Abbey would not be the living building it is without them. As to the cemetery being a good home for sculptors, it certainly was now a good home for bad sculpture. He confessed that in the papers there was plenty of sympathy, but there was no direct open sesame for working together in collaboration.

Mr. Beresford Pite observed that the line taken by Sir Wm. Richmond in regard to the distinction between styles and style was one of very great importance to architects, and one Mr. Street had given expression to in some Royal Academy lectures which he (Mr. Pite) had had the pleasure of hearing. He could not give Mr. Street's definition between styles and style in his exact words, but he could give them the substance. Mr. Street held that style was an expression of character—the expression of the artists feeling rather than a copying of certain forms of architecture. That coming from a man like Street, who was regarded as being bound hand and foot to what he (the speaker) would call the corpse of Gothic, was very significant. The difficulty they encountered was that they were living at the close of a period of Renaissance, for, since the Renaissance put the world upside down, and the arts destroyed themselves, and students began to study from foreign foundations and drink from ancient waters, they had lived in much of a Renaissance, and they could not work themselves free from it. If they stripped an architect of his style — his architectural style—what was left? He was left to his own resources, to his own character. He had, say, been struggling with that for the past five years, and had now a style which he could only designate of the magpie and stump order. He had rubbed out everything, leaving only the bare walls and windows, which was nice so far as it went, but it did not go far enough. Let that architect strip himself of architectural styles and undertake a monumental work, say, a national memorial work in Hyde Park. How would the magpie help him? He would be bound to go to the Renaissance, although he had the whole world of beauty open to him. He was bound to come to the conclusion that the cultivation of architectural character would have to be tried before they attempted the cultivation of architectural style from character.

Mr. Woodward remarked that the subject was somewhat academic and theoretical, and he had hoped that the discussion would have taken the form of suggesting the manner in which the wishes of the readers of the papers could have been accomplished. His first thought on hearing such papers was to look around and see if there were any examples in which the unity of architects, painters, and sculptors had been successful. There was one building, namely, the University of London in Burlington-gardens, which was a very successful example of this union, but in the majority of cases many difficulties arose, the painter wanting projections, which the architect could not spare, taken away for the purpose of giving effect to his decoration, and the sculptor desiring other alterations for the benefit of his work. For the purposes of such uniting they needed entire sympathy, and when that had been secured then they would be able to have that unity of the arts which all in that room and the public generally desired.

Mr. Aston Webb complained that the architects were looked upon as not altogether persistent in the movement for the unity of the arts. He thought it could not be denied that they were most anxious for it. The difficulty to be solved was how to apply the principle of unity. All art and imaginative work must be created, and it seemed only right and essential that the first creation of the building should rest with the architect. If after that they could collaborate with the artist and sculptor so much the better. There had been a house recently built in the erection of which a sort of co-operative system had been applied. It was a system in which one gentleman, an architect, associated with himself a large number of artists and all the crafts. That system had worked most successfully, and so far as he had heard there had been no rows or dispute about the work. That certainly was an encouraging example. Another instance was the Albert Hall. Captain Fowke originated the general conception of the building, but, dying before it could be carried out, General Scott took command, and he associated with himself a large number of artists and craftsmen who carried out the work. He read a paper before that Institute at the time, describing how the work was done. He laid down the general lines of the oval, and then called into consultation the painters to design the great frieze, and craftsmen and architects who designed and carried out the enrichment work. While the architects were not altogether to blame for the separation that had taken place between the arts, the position of the painter had become attractive by picture painting almost to the exclusion of the decorative work. It was Ruskin who said somewhere that it did not matter whether a man spent three months in painting the petal of a flower or a day in covering the front of a palace, so long as he had his whole heart in what he was doing. But their best efforts should be directed to seeing how they could employ the art of the painter with some hope of permanence, for no art without permanence was likely to call forth the best efforts of the artists. With reference to style, Mr. Pite had said what was true in declaring that a man could show his individuality in a style that had already been worked upon. To put an architect to design a house of the Elizabethan style or of the thirteenth or fourteenth centuries was an insult, and one could easily sympathise with sculptors and painters who were endeavouring to reproduce in modern times that which was produced in earlier centuries.

Mr. Ibberson said the great difficulty in collaboration was not so much in arranging for give and take, but in dealing with the public, whose idea generally was that there should be no blanks on the exterior of the building. A very distinguished friend of his, who was once an architect, had now given up the profession because, as he said, he could not struggle with the public any longer. His friend's view was that public opinion should be formed by means of literature, and he (the speaker) endorsed the view that literature might bear its part, though sculptors and painters could help them by endeavouring to improve public taste.

Mr. Geoffrey Lucas said Sir Wm. Richmond had insinuated that architects were incapable of producing anything fresh. He had been looking through the galleries of the Royal Academy this year, and it appeared to him that that statement could be attributed to artists. He saw the same kind of pictures and sculpture as in previous years, and as a layman he could not perceive any fresh developments. They had heard much about the spirit of the age and man's individuality, but it was exceedingly questionable to him how much of a man's individuality should be put into his buildings. If they took some of the great Renaissance buildings of the past and did not know who built them, could they single out several that had been built by any particular man? There was not so much in man's individuality as some thought. Possibly Michelangelo would never have risen to the greatness of St. Peter's but for the fact that he was bound to carry out the work. His master the Pope wanted something big, and Michelangelo had to supply it. Man's individuality was, as a rule, a very poor thing with most of them. What they needed most was not to trouble about their own individuality, but to grasp the spirit of the age rather than to indulge their petty fancies, which at the best were very poor things, like some of their characters when they were exposed.

Mr. Seth-Smith said he should like the Conference to know what was being done by the Architectural Association in London. He was very pleased to hear what Sir William Richmond had said about a broad training, and to announce that that was the kind of training which the Architectural Association were giving at the present time. Any suggestions which Sir William Richmond and other artists, painters, and sculptors could give would be most welcome. They were giving training in painting—water-colour work particularly—and also in modelling by the very best men they could find, and they considered that allowed a broad basis for architectural training.

Mr. Paterson said that to bring the matter of money into such a subject was to lower it from the high altitude it had gained; but, after all, as they all knew, money had a serious effect upon the limits of the work they had to do and the clients for whom they had to work. He found this difficulty with the painter, that that artist did not sufficiently recognise the difference between painting a picture on the chance of selling it for so many thousand guineas and the filling up of a space in a building. They had become so accustomed to selling squares of painted canvas that they refused to consider the possibility of doing a bit of decorative work in collaboration with the architect for such a sum as his client was prepared to pay.

The Chairman announced that they had arranged to visit the new Westminster Cathedral at three o'clock that afternoon, and as it was getting late he would call upon the three gentlemen who had read the papers to make any remarks they wished in reply to the discussion.

Mr. Mountford said his reply needed only to be very brief. All architects, he thought, would agree with him that they always had styles with them, but there was a great improvement setting in among the younger architects. The younger architect seemed not to care so much about style as about styles. With regard to Mr. Sumner's humorous remarks about architects and creation, all he could say was that if the creation did end at the third day, humanity would have been saved a lot of trouble.

Sir Wm. Richmond, who also replied, said he quite agreed with what had been said by one gentleman, that the matter rested a very great deal with the public. There was one instance of the overweighing of public opinion that came conspicuously before his notice when he was a member of the committee appointed to arrange for a memorial to Mr. Gladstone. He undertook to frame a careful statement of what the monument should be. In the first place he held that Mr. Gladstone should be represented from the larger and broader point of view—not only as a statesman but as a lover of literature and as a refined and cultured Englishman. The suggestion he made was this: Obtain a small site in St. James's Park, get the best architect they could to design a beautiful little building, get the best sculptor they could to make the best effigy, recumbent and studious instead of representing him in a state of emotion—that was to say, to represent him resting from his labours with representations round about him in the chamber of all that which had helped to make his life as interesting as it was. There was 60,000*l.*, a sum with which a great deal could have been done. Did they accept his ideas? No. What they would have in deference to the public wish was a gesticulating statue. Several such had been erected, one in Edinburgh—he believed they refused to have one in Ireland. But

Mr. Gladstone must always be represented as being in the House of Commons. As long as the English public took that view of the man, and regarded him as a specialist in life, so long would it be impossible to shake off that "specialism" and memorialise the man on account of his achievements in literature and his attainments in learning. Sir William proceeded to offer some remarks on fresco painting, and spoke of the value of the yolk of an egg as a preservative against the action of the atmosphere. He reminded them that a great interest centred around the recent discoveries of paintings in Crete, and mentioned that he had approached the Hellenic Society and had offered to go to Crete and make copies of these pictures, which were supposed to date from 800 years before Homer. If the Institute would allow him on a future date, he would have pleasure in addressing them on this interesting subject at length.

Mr. Mullins confined himself only to the point raised by Mr. Sumner, remarking that he would not like to see the statues removed; for, although they were not decorative, they were at any rate free from the most annoying sculptural features.

The Chairman said it spoke well for the dawn of the new century that such a discussion as that should have taken place that day. There was a great deal of truth in that remark that the public wanted educating, and that education could come through literature. It was the great revival of literature that finally aroused the Renaissance in Italy. At the same time, a great deal depended on architects to foster that education. At all events, it showed great prospects for art in the new century that there should be so strong a desire for architects, painters, and sculptors to join hand-in-hand in making art abreast of the times.

The readers of the papers were accorded a vote of thanks, and this concluded the morning's proceedings.

Visit to the new Westminster Cathedral.

The opportunity to view the new Westminster Cathedral in the afternoon was taken very general advantage of by the members of the Congress. Early arrivals started an exploration on their own account, and by three o'clock there was a large collection gathered round the gentleman who was explaining the points of general interest; Mr. Bentley was to be seen in the crowd listening to the explanation of his work. The building is based upon the Byzantine plan, consisting of a nave divided into three great bays each 60 ft. square, and 60 ft. to the springing of the great semi-circular arches, ceiled and roofed with a low segmental dome. The sanctuary forms another bay about 53 ft. square, also covered with a dome. The dimensions and smaller dispositions of the plan will be found in *The Builder* of February 25, 1899. It was impossible to get a clear view of the interior, which is at present a mere network of scaffolding and rugged brick piers and plain surfaces, crowned with the naked concrete saucer domes. As funds allow, this interior is to be cased in marble for 37 ft. from the floor line, and above this with mosaic, the designs for which Mr. Bentley is preparing with his own hands.

The most interesting time was spent amongst the scaffolding and above the concrete domes, which were being cased in their artificial stone skin; a magnificent view of the building was obtained from the eminence of the incomplete tower, and the detail was both admired and criticised; it is full of grace and originality, if anything a little small in parts, but, doubtless, the effect when the building is free of its scaffolding will justify the architect's choice in such matters of detail. The visit ended by viewing a carefully-executed and elaborate model of the building, which was made some time ago at the workshops of Messrs. Farmer & Brindley.

In the evening a meeting was held in the Meeting-room of the Institute at No. 9, Conduit-street, Mr. E. A. Gruning in the chair, when papers were read on

"*The Ideal City.*"

Mr. Halsey Ricardo first dealt with the subject in the following paper:—

"The object of my paper to-night is to try and precipitate, by means of discussion and suggestion, some conclusions as to what an ideal city should be, and also some agreement as to what a city should not contain that set up any claims to be beautiful. What is it we want? We go up and down this city of London, for instance, open-eyed and open-mouthed, eager to observe and loud in our expressions of disapproval; but what do we want? What are our ideals? Abstract disapproval is so easy, and often so unhelpful—almost any one of us can condemn, but when bidden to specify alterations, difficulties—the difficulties in fact—at once begin to appear. Are we all agreed as to what we want? And by we I do not only mean architects, I mean amateurs of architecture, cultivated people, men of taste, those who have given thought to the matter, made their observations on other towns and digested them, County Councillors, all those who have the care and the guardianship of this our city. What is it you want, and are you agreed upon it? What are your ideals? We architects want to know. They are your ideals that are being carried out. Architecture, so far as it is a living art, is the realisation of the aims and needs of those that produce it, and the vernacular architecture of any given period is the index of the general feeling and temper of that age. The few sporadic attempts to do scholarly, antiquarian, or reactionary work have little influence on contemporary work, except where it happens to find itself in sympathy with those views; the great mass of building and construction generally is the true exponent of the popular view of architecture. Are you content? and, if so, why do you grumble? We talk of a city being beautiful, but we smile at the idea of making London so. Why? Even if, in these humble-minded days, that were too much to propose, could we not, if we wished, prevent its growing uglier? As it is, London gets more hideous and more hideous every day. We never see an old house threatened with demolition, but what we have to fear a loss in its successor; we never see a concerted design in architecture, such as some of our squares, a few streets like Stratford-place and others, but we know their harmony is soon to be disturbed, and that quality of unity got by gracious co-operation will be burst in upon and flung into the gutter. We have buildings we call masterpieces—can we not at least preserve them unharmed? We allow the appearance of Somerset House to be defaced by mean additions. We talk of alterations to Waterloo Bridge; Hawksmoor's Church is undermined by a railway station; the moment a monument comes in the way of what is called the 'convenience of the public,' it is doomed and disappears.

Is it true, is it probable, that we cannot have what we want? What is it stands in the way? It isn't money. We can afford to have our way. We hear ourselves described as an indomitable people, and we accept the epithet with complacency; it is not from want of saying that we know we are rich. We may not be an artistic people, but we are good organisers and governors, and such a standard of magnificence as Rome achieved might be ours, did we desire it. The trouble is that we are not agreed as to what we want, and we are not sure that we ought to want it. Directly we are all agreed upon some public matter, an architecture springs up in response, and, according to the quality of the sentiment, so is its interest. The national conscience has for long been deeply stirred by the sight of helpless suffering, and the hospitals we have built to alleviate that and to increase our knowledge as to its prevention, form one of the contributions of fine living architecture to the nineteenth century. So, too, are the great asylums. The care and thought, the quintessence of medical observation and research, have been gathered up and sublimed into formulated necessities, which have dominated the buildings erected in compliance, and by their insistence have given strength, and history, and interest to these structures.

Other contributions to the architecture of our time are our Board schools, museums, public libraries, and technical institutes, based also on a popular desire to improve the conditions of our life. Abate something of the virtue of the impulse, and the standard of interest in style of architecture falls immediately. The theatres, restaurants, and gin palaces all rise in response to the popular call, and the nobleness of the demand dictates, in proportion, the nobility of the architecture. But in these instances there is, broadly speaking, a general agreement and codification of our desires; it is not so as regards the general treatment of our city. What is the view one is to take of London? That is a vast workaday centre, from which all who are fortunate enough flee, after the day's work is done, to a bed in the country. If so, let us at once set about accentuating the position and importance of the railway stations; let us widen and straighten the routes between them; let us concentrate within a ring, if possible, the industrial nucleus, and separate the residential from it with an insulating zone of open space. We shall not make the city beautiful, it is true, but we might possibly its suburbs.

The day has gone by when the city was walled round for shelter and defence, and the great gates of old time have been replaced now by those huge vomitories—the railway termini. But the gates of the walled city were prominent features both from within and without; their purpose was unmistakable and resulted in characteristic form. Cannot we do as much for our railway stations? Merely to clear away a wide space in front of them and to make the route spacious and direct, would do much to give them distinction. Although I myself repudiate the idea of treating London as a mere workshop, still it is at least a definite treatment, a definite conception, and definition is what is at present so forcibly lacking in the handling of our city. The anxious, fevered scuttle from station to office, and from office back again to catch the train, is not a particularly fine idea, and is not likely to bring about particularly fine results; but, poor as they would be, they would be preferable to the present welter and the sense of compromise got from adjusting small individual claims. Or shall we take the view of London that it is a place to be proud of, and that we mean to be proud of it and keep it as a source of pride? There are many things that would justify us in this attitude—the river and some of the bridges that span it, and the Embankment that confines it; the Abbey, the Cathedral, the many churches and public buildings, some few of our squares and streets—possibly our parks.

And what should we do? Well, I am talking of the 'ideal city,' and I permit myself some flights of fancy that may be condemned as not altogether practical, though I try to keep on the hither side of Utopia, and so I answer, 'Keep them.' Keep our public buildings, keep our bridges, our squares, and our streets (those that we are agreed upon as embellishments of our city), keep them as they stand, at least for the present. As they are the subjects of our pride, let us treat them so; let the access to them be obvious and direct. Take the river for example. Let it be embanked on both sides, and let us have occasional glimpses of it from the Strand, wider and less squalid than the few grudging peeps which we can with difficulty now get. We are incessantly increasing the span of its bridges to facilitate the water traffic, let us have a traffic that may be pleasant to the eye and handy to the passenger.

A swift service of small steamboats, trim and tidy, would help to relieve the congestion of our streets, and in many weathers and to many people would be a welcome alternative to the pavement. I said 'trim and tidy' because on the grounds, seemingly, that we are rich and industrious we can't afford to be clean and decent, and haven't the time to be bothered with the necessary trouble; so London is disgusting and smelly owing to our slovenliness. The pride in a neat and perfect turn-out still clings to the stable, the harness-room, and the coach-house, and, by an association of ideas, somewhat affects the railway train; but the pavement is a fixed, interminable spittoon, and the tops of omnibuses a travelling one. In my ideal city, my impracticable Utopia, I would have a higher standard of cleanliness, and scavenging. I would have more pageantry, more processions; and I would make many of them go by water. The Mayor and his state barges should be a familiar sight on the Thames. And I should like more music, especially on the water. The organ-grinder, the solo instrumentalist, 'the German band,' and all such small enterprise I would banish utterly from the streets, as well as yelling ruffians, street cries, and newspaper pitches; but in compensation I would increase the quantity of music already provided by the County Council, and I would provide a supply of kiosks in the streets where people could buy their papers in peace. We are surely all agreed that noise and disorder are ugly features in a city as well as in a house; and yet we permit great shouting letters, winking and glaring lights, every form of eye-torture that may sear itself indelibly

on the brain—for the object of many of these advertisements is that you may never forget them again for the rest of your life. In the 'ideal city' there would be a control over these street distractions, so as to secure some uniformity of effect. Nor should the streets preserve their haphazard character, so far as their general growth and expansion may give us chance for correction. The great streams of traffic should cross each other at right angles. The railway stations, the great creators of the swift-going traffic, should be recognised and their influence accepted, and the shortest direct routes to them taken in hand and developed to meet the case.

But life is not all a hurrying from one ant-hill to another; there is such a thing as leisure and the enjoyment of it, there is such a thing as work which may be done deliberately and in quiet. Let us preserve, then, the back-waters and retreats, where we can find them in London, and insure that they shall not be arbitrarily invaded. They should be shelters of our monuments. Each year we erect fresh statues in memory of famous men, but we have nowhere to put them, and they stand in the howling chaos of our streets, pitiable and helpless, horribly misplaced—or else they are thrust out of sight in narrow streets or chance corners. What a terrible misprision of their qualities this argues! Is it part of the same temper that treats a piece of sculpture, an obelisk, or a fountain quite without reference to the site it has to occupy or its proper function, which is to add to, and accentuate, the general architectonic character of the locality it is to adorn? Architecture and decorative and monumental sculpture are not, as it seems to be thought, matters merely of detail and immaterial how they may be combined, having no necessary connexion—architecture in our cities should be the expression of our ideas, the ideas of a community, our corporate, not our individual desires. The aspect of our streets concerns us all, and such individuality as there may be in it is pleasant to us, so far as it reflects the history of the locality and such human characteristics as are obviously gracious and kindly.

Lastly, there is the question of colour in our ideal city—colour, natural and artificial—both of great consequence as regards beauty and both requiring broad concerted treatment. Natural colour resolves itself into grass, trees, shrubs, and flowers.

I will leave the parks as outside the province of my paper, and consider the use of grass and foliage as it concerns our streets and open spaces. That much can be done by a mere strip of grass is shown by the breadth in front of the National Gallery. But why should we pause there? Why not compress to half their area the fountain basins in Trafalgar-square and turf the square—introducing, during the summer months, a few formal-shaped trees in tubs or boxes to give contrast and variety to the green? Then the trees in our streets. At present they are planted at the sides of our streets, in the pavements, and the contours of the trees chosen are incompatible with the position assigned. They cannot grow properly without interfering with the light and air of the adjacent houses. Trees, such as planes, with spreading foliage, should be planted in the centre of the streets, where they can flourish unmutilated and be of service in dividing the traffic. Where practicable, our streets should open to disclose a vista of green or a peep into the verdure of our squares or a glance on to the parterres of our Embankment. Of artificial colour little has been tried, and that little, done in experimental, isolated ways, is worse than useless. Colour must be treated broadly and in mass; in small quantities it is mainly irritating by its spottiness and the want of co-operation from the rest of its surroundings. Colour, quite as much as any other quality of architecture, must be used to express not merely individual whim and fancy, but must symbolise some general purpose and aspiration. Consequently, if we are to have colour in our streets, we must treat it heraldically. This has been recognised in some measure already, where colour has been employed by bodies of men—such as the State, vestries, parish councils, railway and other companies. Here in London each parish colours its lamp-posts the parish colour—the dust and water carts carry the proper parochial bearings and legends; throughout Great Britain scarlet is the official tincture of the Post Office, black and white the traditional heraldry of the Coastguard stations. Our railway trains and our omnibuses tell by their colour the companies to which they belong and the routes they take. We have London already divided up into various divisions—electoral, parochial, and the like. Let us take advantage of these and display those divisions outwardly to the eye. Already the parish lampposts and other obstacles are distinguished from each other by pattern and colour; we might go farther and define the boundaries of the parish by the colour of the area railings, and some form of superposed tint or quartering in part might define the electoral divisions. Moreover, the vestry hall and parish library would gather up in concentrated form the accepted heraldry of their office and locality, making them landmarks in the neighbourhood by the splendid richness of their colour, containing in their accumulation the separate badges and symbols elsewhere distributed through the locality, and explaining in the sum of their achievements the various voices whose utterances form the chorus of civic life.

Many are the 'ideal cities' that might be shadowed forth, but our first concern is to settle what is to be our attitude towards the city as at present. Are we here on sufferance only, or do we mean to reside in it, and consequently make it worth residing in? This point settled, the conditions of our residence will help to formulate our ideal, and by organised co-operation we can work towards this end, and, once clear in our minds what we want, we can push confidently towards the fulfilment."

Parks and Open Spaces.

The Right Hon. the Earl of Meath, Chairman of the Metropolitan Public Gardens Association, then read the following paper on "Parks and Open Spaces," prepared by Mrs. Basil Holmes, Hon. Secretary of the Metropolitan Public Gardens Association:—

"It is difficult in the course of a quarter of an hour to speak of work which has been going on in our country for several centuries, or rightly to convey any idea of the magnitude of the need for open spaces, and the various manners in which succeeding generations have endeavoured or have neglected to meet this need. The tendency to congregate into towns has always been in existence, but there has also been a corresponding desire on the part of the people to spend their holidays and the unoccupied hours of their working days in the fields and amongst the trees and hedges. The early chroniclers of English history describe all manner of sports in the fields, the making of spring garlands, May-day feasts and rejoicings in the woods, and many pleasures and pastimes on the open lands, the moors or commons, surrounding the towns and villages. The 'open space movement' has been represented during the past three or four hundred years by innumerable struggles to keep free from encroachment such public lands as the Moorfields, on the north side of the City of London, and the commons, heaths, and forests throughout England, by ancient enactments limiting the increase of towns and the proximity of houses, by the opening of the royal parks, by the formation of square gardens and pleasure-grounds, by the provision of forecourts or back yards to both small and large houses, and by public and private benefactions and legacies of lands to be dedicated to the people as village greens, commons, parks, or allotments. During the nineteenth century, when the development of the towns became so extraordinarily rapid, a more vigorous effort was needed to provide breathing spaces for their inhabitants, and since the year 1847 many Acts of Parliament have been passed relating wholly or partly to the preservation, acquisition, or maintenance of open spaces. Voluntary societies have come into existence to preserve or provide public recreation-grounds, with the result that large parks and commons have been secured in and around our towns, churchyards, squares, and other small spaces have been laid out amongst the streets, while trees have been planted and seats have been placed in the public thoroughfares. But the ideal citizens of an ideal city would not be content with such spasmodic efforts and such varied methods of procedure. They would provide open spaces in a systematic manner from the time of the commencement of the building of their cities. And I can only hope to throw out a few hints as to the way in which this might be accomplished.

(*Continued on page 615.*)

Illustrations.

PORTRAIT OF PROFESSOR LANCIANI.

WE give, according to our usual custom, a portrait of the gold medallist of the year, Signor Rodolfo Lanciani, whose name is familiar to every one interested in Roman archæology.

As the President of the Institute, in presenting the gold medal, recapituated the principal work of Professor Lanciani, and his remarks are printed on another page, it is unneccessary to repeat the information here. Although an Italian by birth and by his usual residence, Signor Lanciani has much of the Englishman about him; he has been a good deal in this country; and, as the President mentioned, one of his most important books, "Ancient Rome in Light of Modern Discoveries," was written by him in English.

We can only regret that Signor Lanciani was not able himself to be present to receive the medal on Monday night, when he would no doubt have met with an enthusiastic reception.

MONUMENTAL FOUNTAIN FOR BORDEAUX.

THIS large decorative fountain is by M. Verlet, sculptor, and formed the central object in the sculpture court of the Paris Salon of this year. It was chosen as a result of a competition opened by the Municipality of Bordeaux.

The fountain is entirely executed in stone. The figure seated at the top symbolises Bordeaux; she and one of the children hold bunches of grapes, as representing the vine-growing industry of the district. The Tritons and other attributes, and the figure of the woman reclining on a boat at the rear, symbolise the river and the maritime commerce of the city.

The work is to be erected at Bordeaux as soon as possible.

REREDOS, TRINITY COLLEGE, OXFORD.

THE illustration of this interesting piece of late English Renaissance work is from a measured drawing by Mr. Hervey Rutherford.

The reredos was either designed by or under the influence of Wren, and indeed the similarity with some of the carved woodwork in St. Paul's Cathedral is obvious.

COTTAGE RESIDENCES, &c.

LITTLE description is necessary to set forth the sheet of cottage residences, and other small items which happily fall to the lot of most architects and which are rather welcomed than passed by.

The works here illustrated have been carried out by Mr. William A. Pite, of London.

BANK AT SHILDON, DURHAM.

THIS building is now in course of erection.

The key plans show the accommodation. The walls are faced with red Commondale bricks with Dunhouse stone dressings. The roofs are to be covered with green Westmoreland slates.

Messrs. Demaine & Brierley, of York, are the architects; Mr. Caldcleugh, of Durham, is the contractor, and Mr. Carse is clerk of works.

BANK AT BRIDLINGTON QUAY, YORKSHIRE.

THIS building was completed last year. The key plan shows the arrangement of the ground floor, and on the upper floors is a manager's house. The whole building is cellared; one-half for the bank and the other for the house, with separate staircases. The floors are of fireproof construction.

The front is built of 2-in. thick red Bracknell bricks, with Gazeby stone dressings, and green Westmoreland slated roof. The banking-room fittings are of mahogany and the walls are panelled 7 ft. high with painted white dado, with mahogany doors. The ceiling is modelled in plaster by Mr. Bankart.

The work has been carried out by Messrs. Biscomb & Bellerby, of York. Messrs. Cribb & Co., of Leeds, supplied the fittings; and Mr. T. Carse acted as clerk of works. Messrs. Demaine & Brierley, of York, are the architects.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS:

GENERAL ARCHITECTURAL CONGRESS.

(*Continued from page* 614).

The plan so much in vogue, some fifty or one hundred years ago, of building houses in 'squares' has much to commend it. But such squares should not surround gardens enclosed with railings, to which entrance is only allowed to the tenants of a certain limited number of houses. The square gardens should resemble the Continental 'places'—open day and night, provided with grass, trees, fountains, flower-beds, and seats, and, like the surrounding streets, under the control and patrol of the police. The wider roads should be planted with trees, either near the houses or in a double row in the centre of the carriage way; this would afford shelter in rain and shade in sunshine. All the public elementary schools should have good playgrounds attached, open to all comers out of school hours; and in addition to these there should be separate spaces, playing fields or open-air gymnasia, provided for children, with proper instruction in the use of gymnastic apparatus, so that it might be impossible for any house in the city to be situated more than a quarter of a mile from a public playground. And these playgrounds should be attractive as well as useful, with a part set aside for trees and shrubs, flowers and seats. No large division or ward of the ideal city should be without its park, capable of being illuminated by night, where broad expanses of grass might be seen, and where stretches of water in lakes or streams might bring refreshment to the eye. The public seats should be in groups, in well-lighted parts of the thoroughfares; the drinking fountains and troughs should be artistically designed and pleasant to look upon; outdoor annexes to the restaurants should be encouraged; and every effort should be made to beautify the streets—not monotonously, but with taste and variety, and, above all, to preserve the natural beauties of any space or garden which may be secured for the people.

What may be termed the modern open space movement started before the close of the first half of the nineteenth century. The late Sir Edwin Chadwick, that great pioneer of sanitary reform, made a report in 1842 on the 'Effect of Public Walks and Gardens on the Health and Morals of the Lower Classes,' and he then used the phrase 'open spaces.' He also advocated the preservation as public land of the burial-grounds in towns when they should be disused. It was greatly due to his careful investigations and reports that most of these graveyards were closed in 1853 and the succeeding years, although another twenty-two years elapsed before any of them were converted into public gardens. Now, in London alone, there are over one hundred open to the public, nearly all being attractively laid out. Some of the square gardens have also been thrown open, notably those belonging to the Duke of Westminster (owing to the wisdom and generosity of the late Duke) and those on the estate of the Marquis of Northampton; and they now number, in London, twenty-seven.

I need hardly dwell on the very great success that has attended the work of the Commons Preservation Society, the Metropoltian Public Gardens Association, and the Open Spaces branch of the Kyrle Society. These agencies have, by their labours and their example, stirred up such public authorities as H.M. Office of Works, the London County Council, the Metropolitan vestries, and the provincial county councils and municipal bodies, until it is now possible to say that the desire to acquire open spaces or recreation grounds is universal, especially in the towns and their suburbs. It is still a little difficult for village communities to understand their need of securing definite playing-fields or public gardens when there is no green or common for recreation; but the idea has taken root in the towns, and will in time extend to the villages. Full powers are now given to these public bodies, and to trustees of private estates, to give, to acquire, to lay out, or to maintain open spaces, and information on any point connected with this subject will be gladly supplied by the Secretary of the Metropolitan Public Gardens Association, 83, Lancaster Gate, W. And here I may add that organisations such as this one, which, during the past seventeen and a half years, has carried through upwards of four hundred successful undertakings, are much needed in the provinces. A few of the larger towns have their open-space societies, but in most of them there is no voluntary effort. Many officers of municipal bodies are strangely ignorant of the powers these bodies possess by law, and are glad of information from those who can supply it. Again, it is often possible for a voluntary body to bring some particular case to the notice of the local authority. It is heard of privately, and the society can carry out preliminary transactions of a private nature and save an open space which might otherwise be lost. The members of a public body, who have a score of other matters to see to, cannot be always on the watch for opportunities of securing open spaces, or of preventing illegal encroachments, or of beautifying the streets. It is the sole business of an open-space society to do so; and such a society, working in a friendly way with the landowners of the neighbourhood and the members of the town or district council, can do an immense amount of useful work with but little expenditure.

There is much room for improvement in the way we build our towns and allow our suburbs to stretch out from them, ruthlessly swallowing up the rural surroundings and picturesque estates. But if the public mind is educated to the idea of preserving what is beautiful and of cultivating what is wholesome, if landowners will only realise that the value of building land rises in proportion to the amount of timbered open space adjoining it, if people will understand that the more recreation grounds there are the quieter and less crowded each one will be, I feel sure that the architects of the future will so arrange their buildings as to preserve trees instead of destroying them, and that the cities of the future will no longer be vast accumulations of monotonous rows of houses, but will be interspersed with smiling gardens and healthy playgrounds, and surrounded by parks and woods and playing-fields."

Mr. W. D. Caröe, M.A., F.S.A., followed with a paper on:—

Streets and Bridges. Considered in connexion with our "Unideal" City.

"I wish to preface the few words which follow by admitting that I cannot pretend to emulate the positive idealism of Mr. Ricardo. I have therefore ventured to adopt a somewhat negative method by considering our streets and bridges as we find them—a practical, if somewhat mundane, standpoint. But it is one which will reveal my own ideals, and I trust also yours. The very limited time at our disposal for the discussion of two very large subjects tempts me to the method of a recent manifesto by a notable politician in retirement, whereby the soul of suggestive brevity seems to lie in the promulgation of abstruse queries, answerable by each man for himself. Thus, in regard to my first subject:—Shall our streets be straight or curved? Shall we adopt formal architecture, or the picturesque, or is, indeed, Palladian the only possible? Do we approve of Hausmannising ancient cities? Are boulevards beautiful and entirely conducive to the dignified display of architecture? Is the dignity of our streets to be measured only by their width, or the height of the buildings? How can we prevent the finest building sites passing into the hands of the architect speculator, whose productions are too often a menace to the continued sanity of those who care, and sometimes it seems also of those who are responsible for their stability? How far shall street architecture or our public monuments be controlled, as in Paris, by a central authority, and how shall that authority be constituted? How shall we inculcate a proper appreciation of those priceless memorials, both great and small, which link our ancient city with its great historic past? In other words, how best combat an uncompromising utilitarianism? How can we instil into City Councils and Corporations dealing with vast architectural problems an intelligent appreciation of the accurate procedure which will ensure certainly successful results, without doing indignity to our art or our honourable profession?

All these and many more springs of useful inquiry I commend to each one of you, believing that Lord Rosebery's method is perhaps more useful to us to-night than that of Socrates, and that individual taste and openings for a varying treatment under varying circumstances will help us to more fertile discussion as well as to more fertile result than any suggestions I might be able to lay before you within those limits of your time which I am permitted to occupy. Intertwined with—indeed, comprehending all these queries—is the one, 'How can we interest and instruct the public in architectural scholarship?' This Mr. Reginald Blomfield will deal with to-morrow, but it suggests to me to declare to you my devout belief that the finest street is not the widest street, and not necessarily even the airiest street, or the one best adapted to traffic, but, first, the one which has the most beautiful buildings beautifully placed, and that every step taken in pursuit of our glorious ideals of light, air, safety, and convenience, which has even, in attaining these, turned us away from this more glorious hope and more desirable goal of beauty, is a step lost and an opportunity wasted. In which connexion I will make my only reference to the archæology of this wide subject, and bid you compare La Rue de Fèves, at Lisieux, with our own arified and widespreading Whitechapel.

The chapter of lost opportunities in our streets is indeed a long one. So often might some beauty in small as well as large things have accompanied usefulness, and we may range in our quest from the Tate Gallery to the cabman's shelter, from the cast-iron trimmings of the Tower Bridge to the cast-iron tunic of the London policeman. Most true it is that all the multifold and pressing necessities of modern city life in our streets combine to show us what we are in our appreciation of a city's dignity; the monuments, the signs, the advertisements, the open spaces, the trams, the omnibuses, the lamps and lamp-posts—aye, even the post-boxes and the peelers, to say nothing of the telegraph and tram wires! Who shall say that we have educated our appreciations in these matters, or that they have not a large bearing upon our external city life, as we would wish to see and let others see it? To take an instance. The lampposts of formidable design cannot by night destroy the decorative chain which seems to thread together through the maze of London streets; but what might those standards have done to enhance it by day had they been produced from a design of graceful simplicity? There seems an opening for better things in the recent Act obtained by the City, conferring the power to place lamps and wires upon house fronts. But how can any self-respecting householder (save he who holds a 'public') welcome upon his house front a lamp designed in the same spirit (to give three examples), as the new arc-light standards of the Vestry of St. Martin's, the drain ventilators which tower in unsupported hideousness along the Chelsea Embankment and elsewhere, or those bloated posts, whose nightly office it is to cast lurid gleams upon our most admirable Whitehall Charles I., designed as these are to dwarf and disfigure the proportions of pedestal and statue. To the official mind every statue seems in need of these overpowering torch bearers, and with Charles I. and Lord Strathnairn thus officially glorified, we may expect to behold the Duke of York and Lord Nelson each with his quota of proportionately prodigious satellites, lest perchance we may overlook some shade of our heroes' sky-seeking glory when we stand to study these things upon starless nights or in November gloom. Further, let me instance the lack of imagination we display in the laying out of open spaces, often cleared at great cost. Are asphalte and latrines either satisfactory or picturesque when they appear as the exclusive features, perhaps eked out with a 5*l.* penalty seat? I am not claiming much for that profession, of which I am proud to be a humble member, when I say that there are scores of able designers within it who could show how such things might be better done if only they were given a chance.

And what of the signs and posters—those aching sores—the poor man's picture gallery?—so claimed by his false friends and tasteless toadies. This is a matter upon which I must refer you to Mr. Richardson Evans, the kingpost of that admirable society called 'Scapa' (The Society for Checking the Abuses of Public Advertising), of which I doubt not every person in this room is (or ought to be) an active member. Mr. Evans has most lucidly illuminated this question from time to time in the public press and elsewhere, and has aptly directed much-needed attention to the disfigurement of our streets and street architecture by aggressive and unnecessarily wanton letterings and trade signs, illuminated and otherwise. But, in brief, let us clear our minds, and cease canting about

the poor man's pictures and the rich manufacturer's glorious liberty of puffing (at our expense) his name and nostrums. Shall we not rather assure ourselves that the wanton and vulgar disfigurement of our streets can only increase the vulgarity of those who are so constituted as to appreciate such things, and let us vote at least that, if they must be, the wealthy puffer shall be taxed highly for the infliction of his puffs? In our ideal city, where all our street architecture will be beautiful, will we admit such imposition unheeded? In proportion as we take no pains to regulate the monstrous vulgarity of our signs and hoardings, do we confess our lack of care, of pride, and of instinct for civic dignity and progress?

It would be inappropriate to deal with this subject of streets without special reference to the great new thoroughfare and the opening out of the Strand by the London County Council, the largest enterprise of its kind recently attempted, and one which may be fruitful of much that we desire. Here we may perhaps turn our backs for a while upon Lord Rosebery's wilful method in at least formulating hopes for the final direction these new opportunities may take. The question of straight streets or curved arises when the plan concerns new cuttings to be made, not the following or widening of old thoroughfares, formed as they mostly are upon the curved lines of once wandering country lanes or dykes.

Now the cutting of a straight street through a district, already irregularly streeted, at once lands us in the difficulty of all kinds of awkward and canted corners. Nothing can be more unhappy than the sudden ending of a large building in a sharp acute angle. Instances are numerous showing how this important point has been neglected through a lack of architectural instinct in the initial laying down of new streets—in many instances where it is clear that a very slight change of plan might have brought about results as much more desirable from a practical as they would certainly have been from an architectural point of view. I would make an incidental point upon this head—that however experienced in practical considerations may be the permanent official adviser to the Local Authority, yet an architect of repute and sound judgment should be associated with him in the conception of new streets. I would desire to insist that a graceful sweep, whereby awkward corners and angles are avoided, is better than the sacrifice of everything, even in the main thoroughfare, to mere straightness. I would further bring forward the simple suggestion of sweeping old side streets into the new main one in such a manner that graceful junctions are secured, which seems, indeed, an elementary expedient, but not one on that account the more observed or the less important.

I personally concur unhesitatingly in the desire expressed by the London County Council for a monumental treatment in dealing with the Strand Island and its approaches, and would gladly see such treatment continued as far as Holborn. But a monumental treatment need not mean the continuation of one uniform design throughout the whole length. Might not each block between the intersecting side streets be treated separately as a whole, it being essential in this case (as it is indeed in the whole matter) that the exterior, at any rate, of each such block should be under the control of one competent architect? Thus we might secure a result at once monumental, varied, and interesting, and not of a more than Parisian monotony. To some extent a similar dealing with broad frontages was adopted by the late Duke of Westminster in Mayfair, and but for the fussy influence of the terra-cotta craze, which happened to come at an unfortunate period in the development of the scheme, the work done might have been even more successful than it is. In their scheme, however finally attained, the London County Council must bear in mind rigidly to control the future alteration of façades and roofs, as well as their erection, or we may get a repetition of Regent-street, where excellent intentions, also upon the lines I have indicated, have led to disastrous results in the hands of unsympathetic or ill-trained modern maulers and re-designers.

I must not in this City of London conclude this part of my paper without brief reference to that most brilliant example of skill in the laying out of a city as proposed by Sir Christopher Wren for the rebuilding of London after the Great Fire of 1666. This is deft indeed in the avoidance of those errors to which I have referred. The introduction of polygonal figures concentrating upon important points is so cleverly conceived that I have had the plan printed and handed round the meeting, so that those not already intimate with it may study it for themselves at leisure. It forms a more complete paper upon the subject than any I could devise to lay before you, and shows how in skilful hands ancient sites, boundaries, gateways, and streets may all be brought into order and made to contribute to an ideal whole.

There is no subject which excites my architectural instincts, pleasures, or regrets more than the contemplation of a bridge, be it of stone, wood, or iron. There exists what I venture to call a practical poetry about such a structure, nobly conceived, appealing to all those subtle senses set in motion by architectural appreciation. And it is not to be gainsaid that every age up to our own which has included bridge-building among its arts and sciences has unequivocally recognised this fact. I recall to you in support of this statement the numerous examples, from the Roman era onwards through Mediævalism, which loved to hallow the bridge by the chapel, down even to our own London Bridge. And while it is also true that the inspiration which has ever pervaded bridge-building has not left untouched some of our earlier engineers—among the honourable roll of whom I would name, in the manner of the happy Venetian precedent, Rennie of London Bridge, Telford of Menai Bridge, Brunel of his Cornish trestles, Adams of that exquisite Eskutér Bridge at Buda-Pesth—yet it may not be denied that with the change from the direction of the architect to that of the engineer has come that lack of appreciation of beauty and fitness, resulting in those hideous bridges which disfigure our roads, our rivers, and our railways.

Not for one moment do I depreciate the vast benefits to the human race conferred upon it by modern engineering skill. Had they only been as artistically successful in constructing their bridges as English engineers have been in the outward forms of their best locomotives we should have no complaint, but only admiration for all their work. But the problem was not the same. Quite absent from the locomotive, into the engineering problems of the bridge enters the element of architectural scholarship; and this the engineers have, with a few noble exceptions, made no attempt to master. When the importance of an architectural treatment has been recognised it seems generally to have been relegated to the office sweeper, who has swept up the torn pages of mutilated text-books or manufacturers' catalogues and failed to consign them to the waste-paper basket. Albert Bridge, Battersea, Blackfriars, Charing Cross, Cannon-street, Chelsea are specially our A B C of how not to build bridges; and Vauxhall brings us nearly to the other end of an alphabet which terminates in Wandsworth and Westminster. But it is easier to reckon the other way, when we find we have only two bridges out of seventeen within the metropolitan area which are worthy to be named among the monuments of London.

I wish in these few remarks specially to insist upon the essentially monumental character of a great bridge, and I would urge upon our Members of Parliament, who grant bridge-building powers to railway companies, and upon our County Councillors to excite their sluggish imaginings and rise to the level of recognising at once and for all time that a bridge across the Thames is upon the same plane of monumental and architectural importance as St. Paul's itself, and demands the same developed architectural power to design or to embellish it. As regards the railway bridges, admitting fully their necessity, there is no excuse. In laying down a railway through a city the cheapest thing is to bridge the river. It does not compare with the buying up of land and claims, coupled with land construction. Yet the public has to pay in outraged sensibility and higher rates, all because of the imperturbable callousness of our Parliamentary representatives. Even now our peers have just allowed a Bill to pass their honourable House, whereby that Charing Cross monstrosity is to spread itself into Northumberland Avenue. No safeguard whatever is given to the public—not even advantage taken of the lever secured by a previous Act, which, in any widening, compelled the company to purchase the block of houses facing the Strand. But we must admit that a railway company is not bound, in these ultra-commercial days, to hold anything sacred, save dividend; but is that an excuse for the direct representatives of our interests, who control the revenues we provide by our contributions to civic progress and order? Why, I ask, are the County Council recognising the architectural importance of the Strand improvement and denying the architectural importance of Vauxhall, and, I suppose, Lambeth Bridge to follow? If the architecture in the Strand will cost one million, that at Vauxhall will cost at least half! Why should they assign the one to the united efforts of eight selected architects, and be content with the other as a mere piece of copybook design—in which, in the words of our premier novelist, 'that rank which forms, as it were, its highest grace and ornament is mingled and confused with the viler parts of architecture'? In no sense do I depreciate the importance of the engineer's control of all the bridge-building problems which depend upon engineering science; and if the engineer can prove himself the peer in architectural skill of those others whom I have named, I am happy indeed to leave the whole work in his hands. But, as the matter now stands, and with the elaborated design before us, the action of the London County Council is wholly inexplicable and opposed to the public interest. It is far from conducive to their being trusted as the central authority in whose hands the improvement of London and her monumental architecture may be left indiscriminately or ungrudgingly.

It would be impossible not to refer, in this connexion, to the new Pont Alexandre III. at Paris, in which the architects, sculptors, and engineers have collaborated so ably together, and the pylons of which to my eye are quite delightful. The conditions laid down were such that a bridge of steel construction was inevitable, and MM. Résac and Alby had resort to a single span of cast steel ribs, almost going back, constructively, to our Southwark model. To my own idea the architects and sculptors have been more successful in their share of the work than the engineers, because the latter have not been fully conscious of the limits of their material in appropriate decorative use. The total result, however, is such as to make us jealous of this bridge as the outcome of one of those things they manage better in France—merely because they recognise the simple logic of facts and the teaching of experience and history.

I hope for no more from these few remarks than that they will suffice to stimulate discussion upon subjects which cannot fail to secure your interest. Whether you are architects or otherwise, dwellers in cities or enjoying country life and pursuits, I need not remind you how in these days of strained effort, Vulgarity, hydra-headed, thrusts itself oppressively into the daily life of all of us, and none of the arts suffers from the unwelcome intrusion so much as architecture. And our St. Michael, our hope in wrestling with the monster, must ever be an accurate and refined scholarship, which—be we mere plodders, whose best aspiration is but for a laboured success, or gifted with the imagination and resource of genius — will guide us always down a sure path, and the spread of whose wings will bring back to us beauty in our streets and bridges and all that appertains to our cities. Throughout all history the growth of civic dignity, monumentally and artistically expressed—in other words, the arts of peace—have ever been held indicative of a nation's position, power, and development in civilisation; and, if not always of rectitude in the past, let this be our added incentive and ideal in a new century of Christian effort."

FROM THE SCULPTOR'S POINT OF VIEW.

Mr. T. Stirling Lee contributed the following paper on the subject:—

Opening.

"The common problem—yours, mine, everyone's—
Is, not to fancy what were fair in Life
Provided it could be; but finding first
What may be, then find how to make it fair
Unto our means—a very different thing.
No abstract, intellectual plan of Life,
Quite irrespective of Life's plainest law.
But one a man, who is man and nothing more,
May lead: Idealise away:
You're welcome; nay, you're wise."

BROWNING.

"*Subject.*—A fair city, is this building castles in the air? No; but from high thoughts and our imaginations we build foundations for its possibilities—foundations have been laid for all time to build upon, materials and all things

necessary are to man's hands, then why idealise, but realise the actual.

The Natural.—It is natural for some men to build, some to carve, some to paint, some to sing, to write and speak in words. We are thinking of our builders of cities; to build, then, is to some natural; it is the sport and pastime of many childhood's hours. How many days he satisfies himself in building with his toys; his castles made with cards, always striving to go one better than the Tower of Babel, higher and higher; then the outburst of joy produced by the downfall, the noise of its destruction; this natural part in the boy, we see in the man, and find in nations; joy of some to build, the greatest satisfaction of some to pull down, to make a noise. In nations as in man we find the natural, the ideal, and then the material, and from these periods we have the height to which its civilisation has reached and the depths to which it has fallen, monuments for all future ages, of a nation's infancy, maturity, decay.

The Growth.—The early settler by the river-side or near the wood first builds his hut; he names it after its natural surroundings—'the hut by the river' or 'by the wood'; he works, and by his toil produces the fruits of the earth—it becomes his garden of riches; then the thinker, who looks up—'man, the uplooking animal'; he sees the sun, the moon, the stars, the seasons; from his thoughts he is led to idealise, to worship, and takes the natural to symbolise his highest aspirations, object for his worship, and strikes out to more perfect manhood, to build a home wherein may dwell his God; he builds his temples, his palaces, his monuments, which clothe his thoughts and express all his highest ideals, and from these grow the maturity of a race. With this evolution of the mind of man comes also the evolution of his morals, which he calls virtues, the causes of joy and happiness, the causes of evil and misery. We can trace the history of nations, the causes of its prosperity and the causes of its decay. And it is natural for man from things seen to think and use his mind, and let the light of his soul dwell on the beautiful that it may live: the natural magnified to its ultimate to illustrate his ideas of the supernatural; the Egyptian his sun-god, light and life; the Greek with his pure heaven and his goddess Wisdom; the Florentine the Mother and Child, the ideal Maternity, and his love of labour—for was not his symbol of harmony of life the sound of the smith beating into instruments of music the crude metal of the earth? Take these five subjects: light, life, wisdom, maternity, labour, and round them you can build all the highest thoughts of man and the religions of nations, and which have been the subjects and themes for the monuments of all the great cities of the world. Take each subject to its ultimate, and you have the perfect actual—subjects fitted for the sculptor's art, and worthy to be placed in your ideal city.

Decay.—But with power comes decay—the worship of the man, much self-glorification. The material man, not man's mind or soul, do we measure him by; by his material external is he portrayed, which produces destruction to the great ideal. We then produce the bulb, no longer the flower that has made this city fair.

The Sculptor.—So we workers in clay, wood, stone, and metals are but the children of your city. We are, at the hand of the builder, to write in streets the great thoughts of your philosophers, the dreams of your poets, the great victories of your warriors, the ever-spreading influence of civilisation, its truth, its justice, and its liberties, that in figure these ideals may live in the crowded streets of your city. But to hand down the mere posthumous portrait of the man is to give to the world the shell without the kernel—not the ideal in which the sculptor's soul may live and breathe, but the dead, mechanical production of a dead thing.

Technique of the Sculptor.—Have we sculptors any ideal for our technical side? Does he reach out to any ultimate in his means of expression? We see he has his ideal subject; has he ideal rules for his practical work? He knows that life is governed by simple natural laws; so just as simply must this child of Nature express himself, and must govern every detail of his perfect work. It depends on the man, his mental vision. You may show him examples of the highest realisation of men's mind and hands, but he cannot reach them if his power of thought is not strong enough to produce the same conception. Take the pupil and the worker beside you; you can so transmit your thoughts and the way in which you see things that he can see just what you point out; but immediately he is left alone he falls back to his own range of vision.

Laws of Sculpture.—What are, then, these simple laws that can express the ultimate of the sculptor's expression? They are the combination in a work of three characteristics of the arts—architecture, sculpture, and painting. The dignity and monumental of the architect, the simplicily of severity of line and form of the sculptor, the atmosphere of light and shade of the painter—all these we find in the great works realised by man in his maturity, and prove what is always said by great artists, 'that there is but one art, but different means of expression.'

Conclusion.—For subjects you take great abstract truths; for treatment you take the natural object, and clothe it with its attributes to personify the unity of atoms into a grand whole; and by the eyes we see and the power we feel will be the result and nearness attained to our great ideal.

Carlyle.—The situation that has not its duty, its ideal, was never yet occupied by man. Yes, here in this miserable, despicable actual wherein thou even now standest, here or nowhere is thy ideal: work it out therefrom. The ideal is in thyself; the impediment, too, is in thyself."

Mr. H. E. Milner, landscape gardener, in opening the discussion, said it was difficult to settle the point of attainment to be aimed at for an ideal city. There were certain conditions under which a segregation of people could live. A city could not exist embracing only palaces and promenades without workers entailing production and distribution, the gathering and accumulation of wealth, and ways of communication. In the generality of cases a city had grown from traders living together for convenience of traffic and for defence, and the nature of the traffic had been influenced by the natural features of the locality, and had grown by the fact of the place being suitable for shipping, for manufacturing and for a trade centre. Few cities, and none had reached importance, had been built for residential purposes with trade as a supplemental consideration. One might more readily look for the ideal there, but the result had not been satisfactory. Washington was perhaps such an instance, but the feeling of monotony, in spite of the grandeur of some of the buildings, was very trying. It seemed, then, that in a city one must look for an accumulation of inhabitants of different degrees, requiring special adaptation to their mode of life, and consequently a conglomeration. He thought that they could only lay down some broad rules for adaptation. A city might be advantageously placed on a plateau about 300 ft. above the sea level, slightly sloping to the south-east with a large wood four miles from its centre on the north-east side, and on a light clay passing lower into rock. It might have twenty miles distance northward high hills preserved, and forming a water course developing into a river, which would fall, producing power to its junction with a navigable river five miles from the centre of the town. This centre of the town might be a park a mile in diameter, intersected by main roads and planted. It could be surrounded by Government buildings, churches, galleries, and colleges, and behind these could be an inner elevated circular railway communicating with lines running N.S.E. and W., and with another circular railway two miles beyond. Broad roads should radiate from the centre, intersecting public squares or gardens, and planted, but he would not recommend planting trees as avenues by the sides of the roads, as their uneven growth would cause waste of valuable land, and prove eventually unhealthy and incommodious unless planted in widened, unflagged spaces with roads on each side. There should be universal electric power supplied and no smoke. All the supply of power and water and drainage should be under one control, and should be in subterranean passages, and in the busy parts special sunk roads for heavy traffic with over bridges might be introduced. Warehouses and docks with the larger manufactories should be next the embanked river, and high enclosing boundary walls, especially next to dwelling houses, disallowed. The tendency to build dwelling houses to the westward had been universal, but with the absence of smoke this need not longer prevail, and in rich and poor quarters might be intermingled, though there would never be the equality which they might expect, only in the realisation of the description of the perfect city pictured in the vision of St. John. In an attempt to remodel an existing city he was of opinion that individual building must be left to those desiring to build and occupy their houses, for as trade and knowledge increased so a better result would ensue. He also thought that manufacturers' premises must depend upon the requirements of trade, but that a central authority should have control over the power, water, and drainage, and have the right, which should be freely used, to dispossess and compensate for main lines of communication and the setting aside of planting areas under a definite scheme.

Mr. Owen Fleming, in proposing a vote of thanks to those gentlemen who had read papers, said he could not help comparing, when the various ideals were sketched out, the actual with the ideal, and he almost despaired of their ever bringing the two into any sort of relation. When speaking of the city he considered they were speaking of it as a whole, and they must not confine themselves to a city beglnning at the Royal Exchange and ending at Chelsea. It existed on a wider scale, and to apply the term "ideal city" to districts such as Hoxton and Walworth, Bow, St. George's-in-the-East, and St. Luke's was as bitter a mockery as one could conceive. Referring to the Institute he remarked that they had a great responsibility in the architectural development of the city, and this fact had been admitted by the L.C.C. and its committees with excellent results, so far as they could see. He gave three instances in which the Institute had formulated a definite line of policy, and remarked that the importance of that line of policy was very considerable, because if the Institute continuously and consistently impressed its view upon the Government and Municipal Councils who were entrusted with the carrying out of improvements at the right time, he considered they would gain a great deal more than they had in the past. In the case of the development of Whitehall the Institute was represented at the Government Committee, and a great many of the suggestions they made were carried out. It was entirely due to their action that the Westminster end improvement of Whitehall had been carried out in such an admirable way. The other end had not yet been done, and he ventured to suggest that the widening of the eastern end should receive careful consideration. The Mall would shortly be opened up, and other improvements must necessarily take place at that end. With regard to Mr. Ricardo's observations and suggestions for the development of Trafalgar-square, if the Institute could lay down a plan showing how the square could be laid out, reducing the size of the fountains and giving more greenery and trees, it would not be very difficult to carry out such a scheme. The Institute was also very much interested in the Holborn and Strand improvement, and he was surprised that Mr. Caröe had not mentioned it. This Institute was the author of the approved scheme, and London was to be congratulated on the broad view which this Institute had shown in the detail and development of this great proposal. This scheme would form an important link in the chain of communication between the north and the south. It also had an important negative result, inasmuch as St. Mary's, in the Strand, was saved for all time, and as the southward traffic would very likely be diverted down the eastern arm they would very likely have to erect a bridge between Waterloo and Blackfriars, connecting with the Elephant and Castle. If that was carried out the widening of Waterloo Bridge, which most architects dreaded, would be put on one side. Then with regard to the most difficult question of Vauxhall Bridge. It was certainly in a very unfortunate position, and Mr. Caröe was very severe on the County Council. It must be borne in mind that the Council in this matter were confronted not only with the Institute of Architects but with the Institution of Civil Engineers, and the latter did not take the same view on the question of Vauxhall Bridge as did the former. Was it quite fair of this Institute to bring pressure to bear upon the Council in this way? Surely the latter would not take the view that they were supreme in matters of architecture, and he would suggest that diplomacy should be used in this matter by this Institute sending ambassadors to the Institution of Civil Engineers

in order that some agreement might be arrived at between them. He had strong reason to believe that the Council would welcome such an agreement very heartily. As the matter at present stood, the Council must either take the side of the Institute of Architects or the side of the Institution of Civil Engineers.

The Chairman: In that case I would advise the Council to take the advice of the Institute of Architects.

Mr. Fleming, continuing, said he was only endeavouring as far as he could to give the view which he understood prevailed at Spring-gardens. He was rather sorry to refer to the fact that the energy of the Art Committee seemed to be lessening. He did not see any report from them in the last publication of the annual reports, and he regretted this, because they could exercise an enormous influence on public authorities if they took up questions at an early stage. There was one other question which he would like to refer to, and one which none of the speakers mentioned, but which appealed very closely to London architects He referred to the housing of the working classes, which was becoming one of the great questions of the day. It had been discussed in Parliament, but without any very great conclusions being arrived at, and, so far as he could see, it would have to be dealt with in a very broad way. It was suggested to him the other day that architects had nothing to do with the housing question, but they certainly had, and if this Institute would appoint a committee to study the great problem he felt sure London would be benefited.

Mr. A. Cates said he did not think they would realise their ideals this generation. He was surprised to hear Mr. Fleming say that there had been some conflict between this Institute and the Institution of Civil Engineers.

The Chairman said he did not believe there had been any.

Mr. Cates, proceeding, said he was not aware of any either, or that the Institution of Civil Engineers had expressed any opinion upon the subject. If they had it would have been regarding the engineering part of the bridge, and not its outward appearance and details. The Royal Institute of British Architects made representations to the Council with regard to the latter, which was of vital importance, and it was a matter of very great regret, in the interest of the public, the Council, and all concerned, that more consideration had not been given to those representations than appeared to have been given. It would be a great misfortune if in the expenditure of so vast a sum of money as upon this bridge, a public monument should be erected the architectural details of which would be open to criticism and would be unworthy of this great Metropolis. He did not for one moment suggest that that would be the case with Vauxhall Bridge, but according to the criticism they had heard that evening it might be possible that its success would not be so great as they all desired. There was one point in the Earl of Meath's paper which deserved very careful consideration. He said, "There is much room for improvement in the way we build our towns and allow our suburbs to stretch out from them, ruthlessly swallowing up the rural surroundings and picturesque estates." Then he went on with a little idealising, but his lordship might have emphasised his appeal very forcibly. We had allowed for many years past all our rural surroundings to be swept away in our suburbs, and picturesque estates to be ruthlessly swallowed up, without exercising any control whatever upon the manner in which this land was laid out for the profit of the greedy speculator. If we went a short distance from some towns we found small buildings erected close up to the edge of narrow roads, and these roads, as the town increased, were created into insanitary streets, especially when the smaller buildings were replaced by larger ones; and this led to vast expenditure of money in widening thoroughfares, which might have been saved if the land had been under municipal control, so that the frontages could have been set back and the streets widened before the buildings were erected. All round London estates had been laid out, or developed, to create ground-rents. Within the London district the actual control which was exercised over these estates was simply with regard to the minimum width of the road and the height of the buildings. There was no control whatever as to the direction of the streets, except the provision in the recent Building Act, which required that every new street should join another and be a direct thoroughfare. The speculator was allowed to lay out an estate and put as many houses upon it as he could, so as to get as many ground-rents as possible, and then to walk off with his profit and to say what a good stroke of business he had done. Surely, considering the great gain to the landlord, it would not be unreasonable to place him under some obligation to provide some open space or recreation ground, and to improve the thoroughfares for the benefit of the population, by the creation of which he made his fortune. This might be done by that control which was exercised in many Continental cities. If such a control as he had indicated had been exercised thirty years ago, how different would the aspect of Greater London be to-day! The districts in the east and south referred to by Mr. Fleming would not have been nearly so crowded with small tenements without any convenience or places of recreation. If the land was laid out in a proper way, it would be to the advantage of the landowner. It might be considered that this was an attack upon the right of property or an attempt at confiscation. He would be the very last person to make such an attempt, but the landlord should be under such an obligation as he had suggested. They all heartily appreciated and were deeply indebted to the great landowners for what they had done. With regard to the great estates of the Duke of Westminster and the Duke of Bedford, we are indebted to them for many of our squares and broad thoroughfares, which helped to make London, in some respects, agreeable. If this sort of thing could be enforced by general legislation upon all landlords—legislation placed in the hands of the London County Council—it would be a great advantage and benefit to the community.

Mr. Hadfield said he quite agreed with the remarks made about towns being erected in anything but an ideal way in the past, and precisely the same sort of thing seemed to be going on at the present time. He was very interested in what Mr. Cates had said with regard to municipal control. Mr. Cates had spoken from a sound, legislative, and conservative point of view, and he was very much in sympathy with his remarks. He considered that a great deal more ought to be done, and would be done in this direction. Sheffield, in his boyhood days, was surrounded by beautiful scenery, but it had been almost entirely crowded out of existence by the system of putting as many buildings upon the ground as possible. In London there was very little of the ideal, and there should be more widely-extended powers to deal with the greedy commercial speculator. Unless something were done, we should have a very serious state of things. He hoped the outcome of this important discussion would be to support the hands of the municipalities in this matter.

Mr. Prior said they had to deal with the existing state of things, and Mr. Ricardo's suggestion was the most practical he had heard.

The vote of thanks was adopted.

Mr. Ricardo, in replying to the discussion, said he had expected some attacks and challenges, but they had not been forthcoming. If they could only settle—if not quite definitely, at least with some concord—as to what their view of an ideal London was, they could then make some headway.

Mr. Caröe, who also replied, remarked that the Institute might certainly take into consideration the suggestion of Mr. Fleming if it were true that another society had been backing up the County Council in their manner of dealing with Vauxhall Bridge. The County Council invited the R.I.B.A. to give them ideas and suggestions, but they threw them on one side. If it were true that there was another society assisting or abetting the Council, he was perfectly ready, and he suggested that this Institute should be ready to put their feelings into their pockets if necessary and get into communication with the other Institute. He did not care how it was done, but they could get a good Lambeth Bridge if they could not get a good one at Vauxhall. He thought the almost extinct body, the Art Committee, should act upon this suggestion, eat humble pie if necessary, and go to this Institute and endeavour to arrive at some reasonable compromise with them. As had been insisted over and over again, all they wanted was to look after architecture, and not the engineering part of the work. There was no doubt the Art Committee was very much disheartened by the manner in which the London County Council had dealt with their efforts in connexion with Vauxhall Bridge, and he was afraid that their inaction of late had been due to the fact that the enormous amount of work which they had done for that important subject had had very little result, although at one time they expected a very great deal. Mr. Fleming referred to the housing of the working classes, and one reason probably that it was not mentioned in the various papers that were read was that it was such an exceedingly difficult one. He desired to compliment the London County Council upon the new building for working classes which was being erected behind the Tate Gallery. They were a credit to London and to every one connected with them. He hoped that there would be some outcome of this meeting, and that some real, definite steps would be taken to endeavour to check the swallowing up of all the natural beauty which surrounded our great cities.

Mr. T. Stirling Lee here remarked that the Earl of Meath in his paper said that they found difficulty in getting fountains for parks in this country. As a sculptor he did not know of any such difficulty.

The Chairman said he was not a member of the Art Committee, but he was a regular attendant at the meetings of the Council, and he had never heard it suggested that they had at any time come into conflict with the Institution of Civil Engineers.

The meeting then concluded.

The following is the programme of the Congress for Thursday, Friday, and Saturday:—

On Thursday, visit in the morning to University College Hospital Extension, Gower-street, W.C., and in the afternoon to Stafford House and other large houses. In the evening Mr. Reginald Blomfield to read a paper on "The Education of the Public in Architecture."

On Friday morning, Mr. Lacy W. Ridge on "Uniform By-laws," and resolutions to be moved by Mr. Charles Hadfield and Mr. E. Sawday (see our "Meetings" Column for the resolutions).

Visits to Messrs. Jas. Powell & Sons' glass works, Whitefriars, and Messrs. Holloway Bros.' works, Westminster, in the afternoon. In the evening the R.I.B.A. annual dinner in the Whitehall rooms.

On Saturday, visit to Greenwich.

Next week our report of the proceedings of the Congress will be continued and concluded.

METROPOLITAN ASYLUMS BOARD.

THE ordinary meeting of this Board was held at Spring Gardens on Saturday, Sir E. Galsworthy presiding.

The Works Committee reported that, with regard to the acceptance of the tender of Messrs. G. H. Denne & Son, of Deal, for the extension of East Cliff House, Margate, it was thought necessary that application should be made to the Local Government Board for an order for 7,981*l.*, the amount of the contract. They recommended accordingly. The estimate now submitted showed a probable outlay of 9,020*l.* The report was adopted.

The same committee reported that they had forwarded to the Local Government Board an estimate (316,400*l.*) of the probable cost of the erection, fitting-up, and furnishing of the Southern Convalescent Hospital at Carshalton. This estimate was exclusive of the cost of land, for which an order had already been issued. They had at the same time informed the Local Government Board that whilst such estimate was furnished in accordance with their express request, the managers would prefer that the issue of the order should be postponed until a definite tender should have been received—a course which was pursued in the case of the erection of the Grove Park, North-Eastern, and Joyce Green Hospitals, and the Tooting Bec Infirmary.

This course was agreed to.

The committee also submitted an estimate in respect to the Southern Hospital. The total, as already stated, was 319,000*l.*, and the details included:—Cost of structure of new buildings, 197,112*l.*; boiler-house, engine-house, and building in connexion with heating and hot water supply, 5,000*l.*; works of drainage, 8,000*l.*; works of water supply, 4,000*l.*;

fittings and fixtures, including engineering works connected with laundry and washhouse, cooking apparatus and appliances, boilers, steam and hot water supply, and heating apparatus, 40,000*l.*; boundary walls and fencing, 3,000*l.*; digging, carting, levelling, including road-making and laying out of grounds, stocking, planting, &c., 16,500*l.*; architects' charges, 8,000*l.*; quantity surveyor's charges, 1,600*l.*; salary of clerk of works, 1,000*l.*; and contingencies, 14,388*l.*

These were ordered to be entered on the minutes.

ARCHITECTURAL SOCIETIES.

NOTTINGHAM ARCHITECTURAL SOCIETY.—The rather meagre annual Report of this Society states that there has been a satisfactory increase in the number of members, three new members and five new associates having been elected. The total number of members is now fifty-three. The Report adds :—

"Seeing that the Society embraces the whole of Nottinghamshire and a great portion of Lincolnshire, the Council are of opinion that the number of members and associates might be considerably increased if members would induce their friends in the profession, and also their assistants and pupils, to join."

During the past year the question of a form of building contract has been under discussion, and was to be submitted to the Master Builders' Association.

Correspondence.

To the Editor of THE BUILDER.

"EXTRAS AND OMISSIONS IN BUILDING CONTRACTS."

SIR,—In reply to "Associate's" letter in last week's issue of the *Builder*, it is evident that the writer is dealing with one side of the question only when referring to trade discounts. From his remarks the uninitiated would be led to think that builders were in the habit of making 25 per cent. to 30 per cent. profit on grates and mantles; which, to say the least, would be utterly misleading.

Many contractors will bear me out in saying that the trade discount on grates and mantles has invariably to pay for transit, carriage, and fixing, when pricing out quantities, which materially reduces the profit, making it more like an average of 10 per cent. than the 25 per cent. and 30 per cent. quoted by "Associate."

It strikes one at once that "Associate" is theoretical in his experience, otherwise he would not individualise on contract work. The result practically is dealt with on the law of average, and most contractors would wear a broad smile at an all-round profit of 10 per cent.

The opinion prevails in the trade that when p.c. amounts are dealt with in the way "Associate" describes, a large portion of the trade discount goes into other than the client's or contractor's pockets, and if classed in the category of "secret commission" perhaps it would in most cases be nearer the mark than "secret discounts." Hence these tears.

VERITAS.

BOOKS RECEIVED.

THEATRES. By W. Paul Gerhard, C.E. (Bates & Guild Co., Boston, U.S.A.)

SEWAGE, AND THE BACTERIAL PURIFICATION OF SEWAGE. By Samuel Rideal, D.Sc. (Robert Ingram.)

NURSES' HOME, GARTLOCH ASYLUM, GLASGOW.—On the 1st inst. two functions took place at Gartloch Asylum, Garnkirk. These were the formal opening of the bowling green and of the nurses' home. Situated to the west of the main structure, which was opened a few years ago, the nurses' home is a separate building of red sandstone. It accommodates about fifty nurses, and has a section for servants. The night nurses are lodged in a part of the home reached by a separate staircase. Each nurse has a bed-room. There are four parlours for day nurses, one for night nurses, and one for servants. Each floor has bath and lavatory arrangements, and in addition there are two cloak-rooms on the ground floor. On one side of the entrance hall is a room in which nurses will see their friends, and on the other is the home matron's parlour and bed-room. While nurses will continue to take their meals in the mess-rooms of the main buildings, a kitchen for occasional cookery is provided on the ground floor, and from this small lifts run to the sculleries and the upper floors. The basement contains box and bicycle room and the heating apparatus. The foundation-stone of the home was laid in September, 1898. The architects were Messrs. Thomson & Sandilands, of Glasgow.

The Student's Column.

DETAILS OF STRUCTURAL IRON AND STEEL.

24.—BEAM DETAILS AND CONNEXIONS.

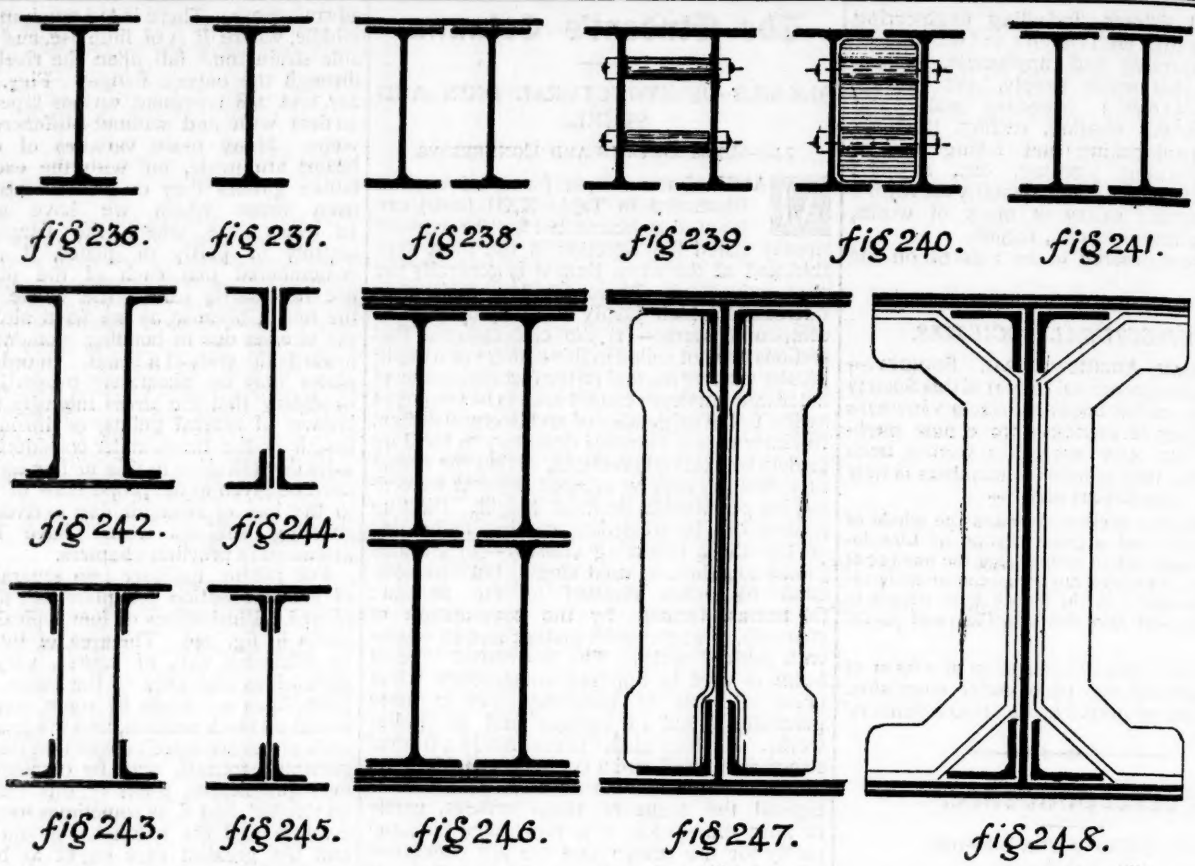
MANY of the simple forms of section illustrated in Table XXII. (*ante*) can be used as beams, but for the reasons already stated the I-section is the most suitable, and at the same time it is generally the most convenient. There are two main considerations which justify the employment of compound beams—(1) the circumstance that sections are not rolled in this country of a depth greater than 20 in., and (2) the fact that beams of the maximum depth cannot always be employed owing to the exigencies of architectural design. In either case it becomes necessary to build up girders from simple sections, so that the necessary strength may be secured without exceeding the permissible limits of height. Built-up girders can be treated as coming under one of the three following classes:—(*a*) I-beams joined together, or used singly, but strengthened by plates rivetted to the flanges; (*b*) beams formed by the combination of channels, or angles with plates; and (*c*) beams with latticed webs. The last-named type of beam is used in building construction when great strength is necessary, but is more generally found in bridges and in similar works. A lattice girder is essentially a framed structure in itself, and a complete consideration of the different forms of such members is beyond the scope of these articles, partly because the subject is a very large one, and partly for the reason that we are concerned with details rather than with questions of design. Our discussion of beam details will, therefore, be limited to classes *a* and *b*.

The simplest type of strengthened I-beam is illustrated in fig. 236. One or more plates may be rivetted to each flange, but it would serve no useful purpose to strengthen the flanges beyond the limit at which the web could be safely used for the resistance of shearing stress. A beam treated as shown in fig. 237 is well adapted for the support of an upper wall, because the plate rivetted to the top flange affords a bearing for the brickwork, but considered on its merits as a beam, this compound section derives very little advantage from the enlarged area of the top flange, for the additional strength secured will not much exceed 10 per cent., whilst the weight, and therefore the cost, will be increased by nearly 33 per cent. If a similar plate were also rivetted to the bottom flange, strength would be increased by about 73 per cent. and cost by 60 per cent. The reason why so small an advantage results from an increase in the sectional area of one flange was fully explained on page 570. The section illustrated in fig. 238 is by no means perfect, as the lower flanges are not held in any way. One mode of using a compound girder of this kind is shown in fig. 257, where a stone bed beneath the girder helps to distribute the weight and to secure an equal bearing. Sometimes cast iron or steel plates are employed instead of or in addition to stone beds. The simplest, though not the best, mode of supporting a curtain wall is to place two or more I-beams side by side, and to keep the beams at a proper distance apart by means of tie-bolts and separators made of wrought-iron pipe, as in fig. 239. This arrangement is distinctly undesirable, and cannot be said to produce a compound girder in the true sense of the term. A much better mode of joining I-beams without plates is indicated in fig. 240, where a cast-iron separator is shown accurately fitting the space between the two joists so that a moderate degree of rigidity may be ensured. Castings to suit all rolled I-sections can be procured, and should always be employed rather than pieces of pipe. The girder in fig. 241 has the appearance of being in every way a satisfactory arrangement, but it is not really so. It is manifestly impossible for rivets to be inserted at the inside flanges, consequently there is a considerable loss of strength by reason of irregular distribution of longitudinal stress, and the beam is more or less of a shaky nature. The section shewn in fig. 242 is much to be preferred, as rivetting can be performed in a more uniform and satisfactory manner. Fig. 246 illustrates a compound section which can be readily built up, though the mode of construction is not otherwise advantageous. There is too much metal at the middle, where it is of little use, and considerable strain must fall upon the rivets passing through the outside flanges. Figs. 244, 245, 247, and 248 represent various types of plate girders with and without stiffeners for the webs. Many more varieties of compound beams are made, but with the exception of lattice girders they do not essentially differ from those which we have mentioned. In every case where the flanges consist entirely or partly of plates, it should be remembered that each of the plates need not necessarily extend the whole length of the beam, because, as we have already seen, the stresses due to bending moment diminish towards the ends of a beam. In order that the plates may be accurately proportioned it is necessary that the stress intensity should be known at several points, or throughout the length of the beam under consideration. Besides due attention to this matter consideration must be given to the proportions of rivets and to the loss of strength due to rivet holes and rivetting, subjects which have been fully discussed in previous chapters.

For joining together two separate lengths of rolled I-section fish-plates are usually employed. Illustrations of four typical plates are given in fig. 249. The area of the plate and its thickness will, of course, vary with the dimensions and duty of the beam. Standard joint-plates are made by some manufacturers to suit all stock sections, and the proportions of such plates are calcu'ated so that the maximum possible strength may be obtained. Whenever practicable, joints of this nature should be rivetted, and if, as sometimes happens, bolts must be used, the bolt holes should be drilled, and the greatest care ought to be taken to see that the bolts are accurately fitted. Failing this, the joint cannot possibly be of a satisfactory character. Beams constructed largely of plates are generally built in the desired length at the contractor's yard, and the outer flange-plates are arranged so as to cover any joints which are necessary. Similarly the joints of plates forming the webs are covered by flat bars or by stiffeners.

The kind of connexion more frequently required than any other is the joining of main girders with floor beams and joists. As a rule, it would be highly inconvenient to place one beam on top of the other, and the weight of one beam ought not to rest upon the lower flange of another, because the load would not then be axial, and, moreover, the sloping and curved flange does not lend itself to the support of a horizontal plane surface. For these reasons the rule is to connect girders by the aid of angle brackets rivetted or bolted to the web of each member. Standard angle brackets are obtainable for all sections of rolled joists, and the use of such is to be recommended, as uniform spacing of the rivet holes will be secured for all sections of equal dimensions. Several different modes of preparing girders for connexion are in general use; for instance, as in fig. 250, the transverse member may be "joggled" at the bottom flange; the top and bottom flanges may be notched and joggled respectively as shown in fig. 251; both flanges may be notched, as in fig. 252; the bottom flange may be notched, as in fig. 253; or the top flange notched, as in fig. 254. In all these examples the chief support is afforded by the angle brackets and the webs, although the under part of one beam is usually shaped so that it is partly supported upon the lower flange of the other. A better plan is to cut away the lower flange and part of the web of the supported girder so as to prevent any weight from being thrown upon the flange of the other beam. The adoption of this course obviates the creation of torsional stress at that part of the supporting beam where the web meets the flange. This is the very worst place for any such strain. Of course, if two equally loaded small girders rest upon the right and left hand flanges of a larger girder, torsional stress of the kind mentioned will not be caused, but if the loads be unequal and variable the alternations of stress will be of a most destructive character.

Strictly speaking, a joggled joint is one where a projection on one member fits any notch on another member, but as the term is applied to beams and other iron and steel sections it is understood to imply that the member has been bent or forged to the desired shape. When a large number of bars have to be shaped, a cast-iron die attached to a hydraulic press affords a ready means of



Illustrations to Student's Column.

performing the work rapidly and accurately. This mode of procedure is generally adopted in iron and steel works, but in small establishments joggling is generally done by a smith, and the work is then expensively and indifferently executed. T-bars are comparatively easy to handle, as the web is equally supported on each side during the process of shaping. Channels and angles are not so easy of manipulation, as the vertical limbs tend to yield laterally when hammered owing to inequality of support. Moreover, it is always impossible to ensure really clean sharp work by the hammer, which is necessarily applied from point to point of the bend, instead of acting simultaneously upon the whole as occurs when a press is employed. Rolled I-sections cannot be readily joggled in the ordinary way because the web would buckle on the application of pressure. It is, therefore, usual to slot out a piece from this part, and to hammer up the flange so that it shall be in contact with the edge of the web. As no actual connexion is generally made between the two parts, the so-called joint has no practical value and the hammered flange simply acts as a packing plate, preventing the web of the supported girder from cutting into the flange of the supporting girder. The flange might advantageously be welded to the web, but it is doubtful whether this is ever done in ordinary work. Speaking generally, it is well to avoid all working of material after it has left the rolling mill, because, as explained in Chapter 7, the effect of such manipulation is inevitably to modify the quality of the metal and sometimes to induce a state

of internal stress which causes a serious diminution of strength.

Notched joints may not look so strong as joggled joints, but when properly proportioned angle brackets are used the former type of connexion may be really stronger and in every way more desirable than the latter. As far as possible, rivets should be relied upon in preference to bolts, and as portable rivetters, of the kind described in Chapter 10, are now readily obtainable, there is very little excuse for the continued employment of bolts, exeept, of course, in special situations and for special purposes. Under the most favourable circumstances bolting can never be so secure as rivetting, and as in building construction, bolts rarely fit their holes properly, bolted joints usually permit a degree of freedom which does not add to the rigidity of a structure.

When describing and illustrating Column Connexions, in Chapters 18 and 19, several diagrams were given which incidentally included beam connexions. It is unnecessary to make further reference to these, as the general mode of procedure should be sufficiently plain. For the support of fireproof floors, channel sections are sometimes attached to columns, as shown in fig. 256; and at other times a compound girder formed of two I-beams is used, as in fig. 257. Various modifications of these arrangements can, of course, be devised to suit the requirements of any building. Proper care should always be taken to protect the metal from air and moisture, and due regard should be given to the essential principles of fireproof construction, when beams are applied in this manner. Girders are frequently expected to serve as ties for the external walls of buildings, in addition to performing the duty of carrying floor joists and floor loads. In such cases, anchors must be used, of the kind illustrated in fig. 143, or in fig. 148 (Chapter 14), or if preferred a pair of angle brackets can be rivetted to the ends of the girder. One mode of anchoring a beam is indicated in fig. 258.

The architect ought not to lose sight of expansion and contraction due to variations of temperature. Although structural iron or steel work inside a building may not be exposed to such a range of temperature as occurs in the open air, it is nevertheless the fact that a certain amount of irresistible movement must take place. If the ends of girders were absolutely fixed in the walls of a building, the structure would be alternately exposed to push and pull as the girders expanded and contracted with variations of temperature. Very possibly distortion of the girders might be caused during expansion, thus lessening the outward thrust, but the full effect of contraction would inevitably be felt by the walls. The longitudinal expansion of mild steel for 1 deg. Fahr. is about ·000006441 per inch; for 50 deg. we have ·000006441 × 50 = ·000322 in. As the extension of mild steel averages ·00007 in. per ton of tensile stress, the force exerted by expansion due to a difference of 50 deg. Fahr. is ·000322 ÷ ·00007 = 4·6 tons per square inch. In the case of a beam having a sectional area equal to 50 square inches, the force would be such as no wall could possibly resist. At the same time, the expansion measured in lineal inches would be small. Thus, a beam 30 ft. long, and exposed to 50 deg. Fahr., increase of temperature, would only expand ·000006441 × 360 × 50 = ·116 in. Even supposing the beam to be 60 ft. long and the range of temperature to be 100 deg., the expansion would be less than half-an-inch, or a little more than one-fifth inch at each wall. If built into the brickwork in the ordinary manner, the necessary amount of clearance would most probably be available so that no damage could result, although movement of the walls in an outward direction would still be prevented. In case of fire, the expansion of metal work would be much greater, and if the beams once failed the anchors might pull in the walls and thus cause serious injury to the building.

EMPLOYMENT IN THE BUILDING TRADES DURING MAY.—The *Labour Gazette* reports that employment in the building trades has continued to improve, and remains good in most branches. The percentage of unemployed union members among carpenters and plumbers at the end of May was 1·9, compared with 2·2 in April, and 1·3 per cent. in May, 1899. Of the twenty-five disputes which commenced during the month, eighteen were in England, two in Wales, four in Scotland, and one in Ireland; thirteen have been settled, but of the remaining twelve no settlements have been reported.

GENERAL BUILDING NEWS.

NEW CHURCH OF ST. JAMES, MUSWELL HILL, N.—The foundation stone of this church was laid on the 13th inst. by the Bishop of London. The style of the church is Perpendicular Gothic, the outside and inside dressings, arcades, windows, &c., being of Bath stone. The walls outside are to be faced with Ancaster rag stone, and the inside facing is to be of sawn Ancaster stone, laid in dark mortar. The church when complete will consist of nave, 96 ft. by 30 ft. inside dimensions, aisles 13 ft. wide, chancel 40 ft. by 28 ft., morning chapel 40 ft. by 15 ft. 3 in., organ transept, and spacious vestries, and porches. It is also intended to erect a tower and spire at the north-east corner of nave to a total height of about 180 ft. The flooring will be of wood blocks under seats, and marble mosaic in passages and elsewhere. The roofs are to be all open timbered, of pitch pine, those to nave and chancel being of circular barrel shape, and panelled by means of principals and ribs. Sittings for 950 persons will be provided. The total cost, including tower, will be about 13,000*l*. The architect is Mr. J. S. Alder, of Arundel-street, Strand, W.C., and the builder is Mr. John Bentley, of Waltham Abbey.

CHURCH, NOTTINGHAM.—The foundation stone has just been laid of the permanent Church of St. Bartholomew's, Blue Bell Hill. The church was designed by the late Mr. J. L. Pearson, R.A., and is being carried out under the supervision of his son, Mr. F. L. Pearson, Mr. J. Hutchinson, of Nottingham, being the contractor. The building will consist of a nave of four bays, 70 ft. by 26 ft., with side aisles each 10 ft. wide; a chancel 40 ft. by 20 ft.; a quasi-transept on the north side of the chancel with organ chamber over it; and vestries east of these, and a chapel 36 ft. by 16 ft. on the south of the chancel, and a south porch. It is proposed to add a tower in a corresponding position on the north side. The principal entrances are by a western door and the south porch. The chancel is somewhat less in height than the nave, and is of the same general character. The chapel, which is of smaller proportions, has an apsidal termination. The walls are faced externally with stone; the dressings are of Bath stone; the roofs are of Baltic timber. The walls inside will be plastered. The church will be seated with chairs and, when completed, will accommodate 650 people.

PROPOSED CONGREGATIONAL CHURCH, AVONMOUTH, BRISTOL.—It is proposed to erect in Napier-road, Avonmouth, a Congregational church. Mr. George H. Oatley has been appointed architect. The plan of the building is arranged as a nave and aisles. The nave has an apsidal termination at the east end for the choir and organ. There is a gallery at the back, approached by a staircase in the low tower at the north-west corner. The upper story of the tower is to form a class-room. The chapel is to seat 500 persons, and the church parlour, which is provided in the rear of the building, is to be hexagonal in plan, and will seat about 100. The style is 14th Century English, freely treated. It is proposed to use local stone, with Bath stone dressings, the walls being lined internally with buff bricks. The roof is to be of open timber, covered with Broseley tiles. The warming will be by a combined system of fresh warm air and hot water.

CONGREGATIONAL CHURCH, WEST HARTLEPOOL.—A Congregational church is to be erected at the corner of Park and York-roads, West Hartlepool. The architect is Mr. W. Lister Newcombe, of Newcastle-on-Tyne.

CHANCEL, &C., ST. JAMES'S CHURCH, TOXTETH, LIVERPOOL.—A new chancel, organ-chamber, and vestries for choir and clergy have been erected at St. James's Church, Toxteth. The chancel is built of red Ruabon bricks, with a tiled floor. An oak lectern and a pulpit were made by Messrs. Jones & Willis, of Birmingham and London. Mr. J. H Havelock Sutton was the architect, and Mr. William Wood the contractor.

NOVITIATE AND TRAINING COLLEGE, MARINO, CLONTARF, IRELAND.—On the 10th inst. his Grace the Archbishop of Dublin laid the foundation stone of the new novitiate and training college for Christian Brothers in the grounds of the mother-house of the Order at Marino, Clontarf. The new novitiate will be three stories in height, and will consist of four wings, including a courtyard. The front wing will be 184 ft. in length and 40 ft. wide, and the principal entrance will be in the centre, facing south. This wing will contain the dining-room, three parlours, a library, superior's rooms, council-room, and rooms for masters and novices. A corridor will run the full length of the wing, and will be 9 ft. wide, and at the rear it will communicate with all the rooms. The west wing will be 115 ft. long and 38 ft. wide. It will contain a refectory 72 ft. long by 24 ft. wide, also a serving-room, two large pantries, and a wide staircase, which will lead to the floor immediately above. At the end of this wing provision is made for the kitchen and offices. The east wing will be 225 ft. long, and will contain study halls, novices' library, staircase leading to the floor above corresponding to that in the west wing. At the end of this is the novices' entrance, cloak-rooms, and a corridor which communicates with the kitchen buildings. The first floor of the front wing will contain a large oratory and professors' rooms. The corridor extends the full length of this wing, and communicates with the various apartments. The west wing contains rooms for students, and at the rear are the lay Brothers' rooms. Provision is made for bathrooms and students' rooms and cells. The chapel will be at right angles to the west wing. The building will be classic in design. Granite will be largely used in the building, and it will be faced with cut stone of the same material. The dressings of the windows and doors will be of limestone. The contractor is Alderman Meade, and the work will be carried out under the superintendence of Mr. Wm. H. Byrne, architect, Dublin.

BOARD SCHOOL, WOODHOUSE.—The new school which the Handsworth School Board have erected at Coisley Hill, Woodhouse, was opened on the 11th inst. The school accommodates 580 children: 420 in the mixed department and 160 in the infants. Messrs. Pinder Bros., of Intake, were the builders, and Mr. J. D. Webster, of Sheffield, the architect.

WESLEYAN SCHOOLS, WORKSOP. — New day schools adjoining the Wesleyan Chapel at Worksop were opened on the 12th inst. The architects were Messrs. Flockton & Gibbs, of Sheffield; Messrs. Rawson & Son, of Tickhill, were the contractors.

NURSES' HOME, ROYAL ALBERT HOSPITAL, DEVONPORT.—The foundation stone of the new nurses' home at this hospital was laid on the 9th inst. Mr. H. J. Snell is the architect of the new building, and Mr. T. May the contractor.

COTTAGE HOSPITAL, DROMORE, CO. DOWN.—The Cowan Heron cottage hospital at Dromore was opened on the 7th inst. The building was designed by Mr. P. C. Cowan, late County Surveyor, and was erected by Mr. John Graham, under the supervision of Mr. Henry Hobart.

PARISH HALL, ST. JAMES', BRISTOL.—The new Parish Hall, Charles-street, St. James', was erected from the designs of Mr. W. V. Gough, and is Renaissance in style. Owing to the site being very much enclosed by high buildings, the lighting for the most part is from near the roof. The large hall holds, with the gallery, about 500. There are two retiring-rooms, with a partition that may be removed. At the end of the hall there is a platform, while in the basement a class-room has been constructed. The kitchen is placed near the entrance. Electric light is the illuminant used. The contract was carried out by Messrs. G. Daltry & Son.

THEATRE, SALTLEY, BIRMINGHAM. — A new theatre has been erected on a site at the corner of Nechells-place and Saltley-road. The main entrance to the building has been made at the junction of the two roads. The central portion is treated in a free Renaissance style, and is built in Kingswinford red facing bricks, relieved with buff terra-cotta. Over the dress circle entrance there is a large window which forms the main feature of the elevation. In the angle of the two turrets are four moulded figures symbolical of music, art, literature, and the drama. The pit is about 60 ft. square, and provides seating accommodation for between 600 and 700 persons. In front of the pit are the orchestral stalls, which give accommodation for about 100 persons. The stage is 60 ft. by 38 ft. Facing Nechells-place are four retail lock-up shops, and in the rear of these are the refreshment rooms of the pit and the artists dressing-rooms. To each of the latter is fitted an external window, while the stage is adequately provided with exit accommodation. All communication to the stage from the auditorium is cut off by means of an asbestos fire-proof curtain, and the doors between stage and auditorium are of armoured oak. On the first floor a dress circle has been constructed to accommodate 350 persons, and two staircases are provided for purposes of exit. The gallery, which is on the next floor, gives seating accommodation for over 700 persons, and the first two rows form an amphitheatre. There are six private boxes, two of them being on the pit level. On the Nechells-place frontage no erection has been made over the shops, and these for the time being will form a concrete flat, which will, in all probability, be converted into a sort of winter garden. The flat extends over the shops, the artists' dressing-rooms, and the pit refreshment room, and can be reached from the dress circle. The theatre will be lighted by electricity, but gas will also be laid on. The stage will be heated on the low pressure system. The inclusive cost of the theatre is upwards of 14,000*l*. Mr. T. Johnson was the building contractor, and Mr. T. Guest the architect.

NEW CENTRAL FIRE STATION, EDINBURGH.—The new Central Fire Station, Edinburgh, built on a portion of the Lauriston Cattle Market, was opened on the 7th inst. The building was designed by Mr. Morham, City Superintendent of Works, and arranged by the architect in consultation with Firemaster Pordage. The establishment occupies an area of 2,609 square yards taken off the south-west side of the Cattle Market; it has a frontage of 256 ft., extending chiefly along Lauriston-street; it is three stories in height except at two places, where an attic floor has been added; and it was estimated to cost, inclusive of site, 35,600*l*. The whole of the fire station, offices, and workshops are on the ground floor; the houses for the officers and men are above. At the angle facing Lauriston-place is a tower 129 ft. in height. The hall where the fire-engines are kept is 54 ft. wide by 38 ft. deep, lined with white enamel bricks, and with a pitch pine ceiling. It opens on the

street by means of four archways, each 9 ft. in width, and while the rest of the building is of sandstone, this part has been faced with granite. The engine hall will contain four fire machines, and at the back are the stables. Proceeding along Lauriston-street is the public entrance to the fire station, in the hall of which is a telephone switchboard connected with the National Exchange, the district fire stations, and other public buildings. Here are also the electric switches for call bells, &c., in the stables, the men's houses, the workshops, and other parts of the central fire station. Opening off it are offices for the firemaster, his chief assistant and clerk, and further along to the north are a dressing hall for the men, a recreation-room, a gymnasium, 40 ft. by 19 ft., lined with pitch pine, stores, and workshops of various kinds for repairing the hose, ladders, and machinery. Nearly all the electric light fittings and many of the mechanical appliances have been made by the firemen in the workshops. The blacksmith's shop is fitted with a double fire furnace, large overhead travelling crane for the better handling of the heavier pieces of machinery, with turning lathes and other appliances, which will be driven by two electric motors. Behind is a courtyard, and that again is bounded by a range of low buildings, which include coal storage and an extra stable, on the top of which is fitted a platform which will be used in fire-drill. There are in all twenty-two houses for the officers and men. The firemaster's house is on the first floor over the engine-room, while the floor above is occupied by the superintendent of the brigade and the market officer. The other houses for the men run along Lauriston-street. They are entered by a common staircase, tile-lined, which at both flats opens at the back upon a long balcony enclosed with an iron railing. Off this balcony are passages, each leading to two houses, some of which are of two rooms, some of three, with all necessary sanitary appliances. There is also accommodation provided for ten unmarried men, attached to which is a common mess-room. On a third floor is a laundry and wash-house, and on the ground-level is a small courtyard, round which is a range of coal-cellars. The contractors were Messrs. Kinnear & Moodie.

SANITARY AND ENGINEERING NEWS.

WATER SUPPLY, PRESTON, NEAR HULL.—A Local Government inquiry was held at the Druid's Hall, Preston, on the 8th inst., by Colonel W. Langton Coke. C.E., relative to an application by the Sculcoates Rural District Council, for power to borrow 5,060*l.* for the purposes of constructing waterworks in the village of Preston. Colonel Wellsted, J.P., is the engineer.

SEWAGE SCHEME, CHESTER. — Major-General H. D. Crozier, R.E., held an inquiry at Chester on the 13th inst. on behalf of the Local Government Board into an application by the Chester Corporation for sanction to borrow 36,000*l.* for purposes of sewage disposal. Major Tulloch, R.E., explained the scheme, stating that it was based on a dry weather flow of one and a quarter million gallons per day. The works were on the same principle as those of Chorley. The sewage would flow into a large circular sump well ; it would then be pumped and mixed with chemicals, and flow into precipitating tanks. Then there was an intermediate process of rough filtration, so as to ensure a perfectly clarified effluent before passing on to the polarite filters, of which there were sixteen. The effluent, after passing over the land, would flow into the river. He estimated the cost of the works at (including 4,000*l.* for contingencies) 36,000*l.*

WATER SUPPLY, TOMINTOUL, BANFF.—The works connected with the new water supply to Tomintoul, which have been in course of construction since August last, have now been completed. The pipe track extends from the existing cistern at the top of the village to about four miles up the Conglass stream. The water is collected from several springs near the farm of Blairnamarron. Messrs. Jenkins & Marr, C.E., Aberdeen, were the engineers' for the work ; Mr. J. H. Clark, plumber, Elgin, contractor ; and the work was superintended by Mr Thomas Drysdale.

FOREIGN.

FRANCE.—M. Corroyer, the architect, and member of the Institute, is to give lectures on architecture at the larger Art Palace, during the Paris Exhibition period.——The Académie des Beaux-Arts proceeded, on Saturday last, to the election of a new member, in place of the late M. Falguière. The voting resulted in the election of M. Coutan by twenty-one out of thirty-nine votes, seventeen votes went to M. Puech, and one to M. Allar. The new Academician was a pupil of Cavelier. He obtained the Grand Prix de Rome in 1872, and the gold medal at the Universal Exhibition of 1889, as the sculptor of the monumental fountain on the Champ de Mars, of which an illustration appeared in the *Builder*. He is also the sculptor of the figure of "France under the Renaissance" which decorates one of the pylons of the Alexandre III. bridge. ——A new group of painters and sculptors has been formed in Paris, under the title "Société Moderne des Beaux-Arts."——A new Savings Bank is to be built at Bar-sur-Seine, of which M. Royer is the architect.——After three years' labour the municipal engineers of Paris have completed the work for bringing the water of the Loing and Lunain into Paris. The aqueduct, nearly 100 kilometres in length, traverses the forest of Fontainebleau and is led to the reservoirs of Montsouris. It affords an addition of 50,000 cubic metres per day of drinking water.——A new military hospital and barracks are to be built at Châlons-sur-Saone.——The Société des Architectes Français has lost the last survivor of its original founders, M. Simon Girard, who died at the close of last month, at the age of 96. His professional career had been devoted to the construction of private houses ; and he was also a great authority on disputed questions of professional practice.

INDIA.—The East Indian Railway Board has accepted Mr. H. Ricardo's offer to prepare a design for the proposed new joint passenger station at Howrah for the fee of 500*l.*——The Oudh and Rohilkund railway bridge over the Ganges at Benares has been lighted with acetylene gas. The total length of the bridge is 3,507 ft. ; there is a roadway on the same level as the rails, and a footway on each side supported on cantilevers outside the girders.——A new type of building has found favour in Upper Burma for the accommodation of civil officers of the Administration. It is said to be suitable for a locality where the rainfall does not exceed 100 in. in the year. The building is usually raised 4 to 5 ft. from the ground on teak posts ; the roof timbers are of teak shingled. The walls are of jungle-wood frames, covered with bamboo matting, mud plastered and colour-washed ; the chimney is of brick laid in mortar.——The grant of a large sum of money towards the improvement of the sanitary condition of the Cooum River, Madras, has been withdrawn, and the amount given to the Harbour Trust Board.——The Simla Municipality has sanctioned a new drainage scheme for the city, and have decided to establish an experimental biological sewage installation.——The Madras Local Government, after consulting the official architect and the chief engineer, have ruled that it is undesirable to supply bricks from Government brickfields, except for the building of public works.——The Budget estimate for irrigation works in Burma in 1900-1901 is twelve lakhs of rupees—nine lakhs for the Mandalay Canal and three for the Shwebo Canal projects.

UNITED STATES.—We learn that the "amateur plans" which were "all ready" for the transformation of the White House, at Washington, appear to have been abandoned, and an amendment has been offered to the Sundry Civil Bill, providing for the appointment of an architect, a landscape architect, and a sculptor, to be associated with the chief of engineers in preparing a report to the next Congress. It is proposed not only to enlarge the White House, but to devise a scheme for the treatment of the entire south side of Pennsylvania-avenue between the executive mansion and the capitol.——It is rumoured that Mr. Andrew Carnegie proposes to found a new annual prize of 500 dollars for painting, to be awarded by the Society of American Artists, for the best oil-painting by a resident American artist.

MISCELLANEOUS.

PROFESSIONAL AND BUSINESS ANNOUNCEMENTS. —Messrs. B. Ward & Co., concrete builders and manufacturers, have removed from 15, Great George-street, to 38-39, Parliament-street, Westminster.

THE INSTITUTE OF SANITARY ENGINEERS (INCORPORATED).—At a meeting of the Election Committee held on the 13th inst. the following gentlemen were elected, viz.—Fellow: T. G. T. Wright, Southend-on-Sea. Members: R. Clarke, Dawlish ; E. Collard, Herne Bay ; H. H. Oakes, Bridlington ; W. Whur, Southend-on-Sea.

SOCIETY OF ANTIQUARIES.—Mr. Rowland W. Paul, whose name is familiar to our readers, especially as the author of many of the drawing and historical descriptions of Abbeys in our series of "Abbeys of Great Britain," has just been elected a Fellow of the Society of Antiquaries.

A MEMORIAL TO LORD BYRON.—In the spring of 1889 was pulled down the house, then numbered 24 (but formerly 16) in Holles-street, Cavendish-square, which had been built on the site of the house in which, as is commonly believed, Lord Byron was born, and whence he was carried to be baptised in the old parish church, built by James Gibbs, of Marylebone. Messrs. John Lewis & Co., of Oxford-street, whose enlarged premises cover the spot, have just erected a bronze and marble memorial to the poet to mark the situation of the house. The bust of Byron was sculptured by, we are informed, Mr. Taylerson.

THE CHURCH PLATE, LLANDAFF DIOCESE.—We learn that Mr. G. E. Halliday, of Cardiff, diocesan surveyor, is engaged upon a descriptive account of the church plate appertaining to some 279 parishes within the diocese of Llandaff. The book, to be published by Messrs. Bemrose & Sons, will contain numerous illustrations, some of them being to scale, of the church plate, with their dates and descriptions.

RE-BUILDING AT FINSBURY CIRCUS.—A large block of buildings is being erected upon a portion of the recently-cleared site, which has been let by the Bridge House Estates Committee of the Corporation of London, at a ground rent of 17,000*l.* per annum. The new block, to be named "Salisbury House," covers about one acre of ground, with frontages of 300 ft. to London-wall and to Finsbury-circus, and of 70 ft. and 100 ft. to West-street and Circus-place, respectively, and will comprise about 800 offices. The architects are Messrs. Davis & Emmanuel. Mr. Henry Lovatt is the contractor.

A BUILDING SITE, KNIGHTSBRIDGE.—The ground lately cleared by the demolition of Stratheden House, was offered for sale at auction last week, and withdrawn at 89,000*l.* The land, forming the grounds of Stratheden House—Lord Campbell's residence—is freehold, and has a frontage of 129 ft. to the high road to Kensington, with a return frontage of 306 ft. to Rutland-gardens, and extends over about 4,400 square yards.

THE SIMPLON TUNNEL.—In a report received at the Foreign Office last month from Mr. Armstrong, British Consul at Lombardy, and now presented to Parliament, it is stated that the work of piercing the Simplon Tunnel, which was begun in the autumn of 1898, has proceeded uninterruptedly, and very satisfactory progress has been made. At the end of 1899 the work done amounted to 1,748 yards on the south, and 2,523 yards on the north side, making a total of 4,271 yards, which is 1,208 in excess of what the contractors had engaged to do in the time. As previously stated, the length of the tunnel will be 12 miles 463 yards. No unforeseen difficulties have been encountered so far, and now it is very unlikely that any such should be met with. The system of ventilating the workings appears to be as perfect as could be desired, and there is little doubt that the tunnel will be completed well within the contract time, which was five years and a half.

DUNKIRK BRICKS AND CEMENT.—Reporting to the Foreign Office on the trade, commerce, and navigation of Dunkirk for the year 1899, Mr. Consul Taylor writes: "The British demand for bricks appears to be declining, for the quantity exported from Dunkirk in 1899 was only two-thirds of that in 1898, and in cement there was a still greater decline, the United Kingdom taking only 210 tons in 1899 against 4,645 tons the preceding year."

EXTENSION OF BISHOP'S PARK, FULHAM. — The extension of Bishop's Park, Fulham, was formally opened on the 16th inst. The pavilion, which the Vestry has erected in the new portion of the park, was designed by Mr. C. Botterill, the Surveyor, and is faced with red brick, with Portland stone dressings up the first floor, the upper portion being in half-timber work in oak, filled in with rough cast. The roof is covered with red tiles. The lower part of the building comprises reading and refreshment rooms, kitchen, lavatories, &c., while the upper part contains living-room, bedrooms, bath-room, &c.

CAPITAL AND LABOUR.

NORWICH PLUMBERS. — It is stated that the Norwich plumbers have just obtained an advance of ½d. an hour without proceeding to the length of a strike. A few weeks ago they addressed to the employers a demand for 1d. advance. A meeting was held by such members of the Masters' Association as the demand affects, and it was resolved to meet the men half-way. This advance the men have accepted.

OPERATIVE BRICKLAYERS' AND PLASTERERS DISPUTE, NOTTINGHAM.—The dispute between the operative bricklayers and the plasterers, which has continued since September last, was amicably settled at a joint meeting of the London Order and Manchester Order of Operative Bricklayers held in Nottingham on the 12th inst. All the demands made by the bricklayers have been conceded by the plasterers, who have also withdrawn their opposition to the bricklayers doing work which they claim to be theirs. A code of new working conditions has been drawn up by which the two trades will be able, in future, to work amicably together. After August 4 the plasterers will resume work as usual for the master builders of the association, and those bricklayers who have been plastering during the last nine or ten months will have power to continue to do so. If they wish they may join the Plasterers' Union.—*Nottingham Express.*

EDINBURGH AND LEITH MASONS' STRIKE.—On the 15th inst. over 130 men left the city and district for employment elsewhere—a good many taking boat for the north of England. Thirty-four firms out of a total of eighty-three have given way.

STOCKTON PLUMBERS AND THEIR WAGES.—On the 11th inst. a meeting of the local Master Plumbers' Association was held to discuss the matter of the men's demands for an increase of 1d. per hour, making their wage from 9½d. to 10½d. Alderman Hind presided, and, after some discussion, it was decided to adjourn for a month. The men have given three months' notice.

EDINBURGH PLUMBERS.—At a meeting of Edinburgh plumbers on the 15th inst. the decision of the arbiter was announced in connexion with the difference with the masters. The latter desired a reduction of 1d. per hour in wages, a return to the three months' agreement, and a change made in the by-law regarding apprentices to the effect that masters "may," instead of "shall," pay the standard

wage on completion of six years' apprenticeship. The plumbers objected, and the arbiter has decided in their favour.

LEGAL.

WORKMEN'S COMPENSATION.

THE case of Stead *v.* Moore and others came before the Court of Appeal, composed of Lords Justices A. L. Smith, Vaughan Williams, and Romer, on the 16th inst., on the appeal of the respondent Moore from an award of the County Court judge of Sheffield in an arbitration under the Workmen's Compensation Act, 1897. The applicant for compensation was the widow of a workman who was killed in consequence of injuries sustained by him in the course of his employment. The facts were shortly these:—Messrs. Malthouse & Ward were builders, and determined to build eleven houses on a piece of land which they had acquired. The firm erected the scaffolding to be used on the work of building the houses, and they did all the brickwork and stonework, and superintended generally the construction of the houses; but they entered into a contract with Mr. Enos Moore, a master joiner, that he should do all the carpentry and joining work. Stead was in the employment of Moore, and while he was engaged in joining work at the houses in question he fell from the scaffolding erected by Malthouse & Ward and was killed. The applicant then took the present proceedings against both Moore and Malthouse & Ward. The County Court Judge found that Moore was an "undertaker" within the meaning of the Act, and that the deceased man was Moore's servant at the time of the accident, and was employed by Moore on Moore's work. He also found that Malthouse & Ward were building owners, and were not "undertakers" within the meaning of the Act, and he made an award that Moore should pay 260*l.* as compensation to the applicant and her children. From this award Moore now appealed on the ground that there was no evidence on which the County Court Judge could rightly find that he was the "undertaker" in the construction of the houses, and that the only true inference to be drawn from the facts proved was that the building owners were themselves the undertakers.

After hearing the arguments Lord Justice Smith, in giving judgment, said that the Court could not interfere with the finding of the County Court Judge. Appeals under this Act were limited to questions of law, and if there was any evidence to support the finding of the County Court Judge then the finding ought not to be disturbed. The controversy in the present case before the County Court Judge was whether Moore was the "undertaker" in the construction of this building, or whether Malthouse & Ward were the "undertakers." That was a question of fact for the County Court Judge, and he had determined it by drawing the inference that Malthouse & Ward had only undertaken that part of the work which was in their particular line, leaving a substantial part of the construction—viz., the carpentry and joinery, to be undertaken by Moore. The Lord Justice therefore thought the appeal should be dismissed.

The other Lords Justices concurred, and the appeal was accordingly dismissed.

Mr. Ruegg, Q.C., and Mr. Hextall appeared for Moore in support of the appeal; Mr. H. W. W. Wilberforce for the applicant; and Mr. Danckworth, Q.C., and Mr. Sims for Malthouse & Ward.

DISPUTE AS TO BUILDING PLANS.

THE case of the Queen (*ex parte* Wright) *v.* the Mayor, Aldermen, and Burgesses of Eastbourne came before the Court of Appeal, composed of Lords Justices A. L. Smith, Vaughan Williams, and Romer, on the 18th inst., on the appeal of the prosecutor from the decision of a Divisional Court of Queen's Bench, composed of Justices Ridley and Darling, discharging a rule *nisi* obtained calling upon the Mayor, Aldermen, and burgesses of Eastbourne, acting by the Council of the Borough as the Urban Sanitary Authority, to show cause why a writ of *mandamus* should not issue directed to them commanding them to approve and signify in writing their approval of the building line as shown on the plans sent by John Arthur Wright to the Urban Sanitary Authority on January 8 last for the construction by him of a block of buildings for the purpose of residential flats upon certain land adjoining the house called Mixbury House in Hartington-place in the Borough. The defendants' contention was that *mandamus* would not lie, as the Council had come to the conclusion as a matter of fact, upon the plans that the house would be beyond the front main wall of the house or building on either side of it contrary to Section 3 of the Public Health (Buildings in Streets) Act, 1888. They contended that if the Council honestly exercised their discretion upon proper materials, the Court would not interfere, even if it thought that, upon the facts, it would have come to a different conclusion (Smith *v.* Chorley Rural Council). In Eastbourne, it was said, there were many streets with detached villas on both sides, and under Section 3 of the Act of 1888 the Council had to consider whether the proposed new building was in a street and was being brought forward beyond the front main wall of the buildings on either side (Attorney-General *v.* Liddall). In support of the rule it was submitted that "Smith *v.* Chorley Rural Council" was wrongly reported or applied, but the Divisional Court felt themselves bound by the decision and discharged the rule. Hence the present appeal.

Mr. Macmorran, Q.C., and Mr. B. A. Hall appeared in support of the appeal, and Mr. C. A. Russell, Q.C., and Mr. Boxall for the respondents.

After some discussion it was arranged that Mr. Wright should send in amended plans, and the hearing was adjourned for this to be done.

AN ARCHITECT'S ACTION AGAINST LORD WATERPARK.

THE case of Foreshaw *v.* Lord Waterpark came before Mr. Justice Mathew and a special jury in the Queen's Bench Division on the 15th inst. It was an action brought by the plaintiff, Mr. Edward Foreshaw, an architect of Uttoxeter and Burton, against the defendant, Lord Waterpark, of East Lodge, Doveridge, Derbyshire, and Park-lane, London, to recover 64*l.* 5s. 2d., the balance of fees owing to him as architect for alterations in East Lodge.

Mr. Herbert Smith and Mr. H. D. Woodcock appeared for the plaintiff, and Mr. Macpherson for the defendant.

Mr. Smith, in opening the case, said that the defendant had not only refused to pay the plaintiff his charges, but he had charged him with having dishonestly taken a sum of 50*l.* 5s. from the builder who carried out the work, and which he said was a secret commission; and he counterclaimed for that sum, and said he was entitled to regard it as a set-off. In 1895 Lord Waterpark got into communication with Mr. Foreshaw, and plans were considered for alterations of the Lodge. Many plans were prepared and altered at the suggestion of Lord or Lady Waterpark, but ultimately, in April, 1897, they came to an understanding, and plans were agreed on. The plaintiff, he might say, charged Lord Waterpark nothing for the plans he had drawn between 1895 and 1897, and all his claim was for 5 per cent. on the cost of the work, which included plans, details, and superintendence until completion. He might say that it was the custom, when an architect took out quantities for the builder, that he should receive from the latter 2½ per cent., and that was where the allegation of fraud came in. The plaintiff prepared quantities and made the customary charge. He received about half-a-dozen tenders from builders, and that of a Mr. Hodges for 1,825*l.* was finally accepted. As the work proceeded, alterations were proposed by Lord and Lady Waterpark, to which the builder objected unless the penalty clause for delay was withdrawn from the contract. The learned counsel then read the correspondence which had passed between the parties, and called

Mr. Edward Foreshaw, the plaintiff, who said that in 1895 Lord Waterpark wrote to him with regard to some alterations to be made at his house. He then made a good many journeys to see Lord Waterpark. It was not usual for the 5 per cent. to include railway fares for special visits or things of that sort unless a special agreement was made. If extras were ordered and work had to be measured up afterwards the 5 per cent. did not cover that. If the architect had to measure up afterwards, 2½ per cent was the usual charge. Witness charged 1¼ per cent. He prepared the detailed quantities. Such work was never included in the architect's charges of 5 per cent.

Mr. Macpherson said he did not object to the charge, but what he objected to was that the plaintiff made this arrangement with the builder without getting Lord Waterpark's consent.

Mr. Justice Mathew: If anybody else had been employed to do the work the defendant would have had to pay for it—do you say that is fraud?

Mr. Macpherson replied that his contention was that the plaintiff taking up that work entered into relations with the builder which were inconsistent with his relations to the employer.

Mr. Justice Mathew: The work had to be done by somebody, and the complaint is that the architect did it. He was only translating the contract, plans, and specifications.

Examination continued:

The object of his taking out the quantities was for the benefit of Lord Waterpark. He could not have got builders to tender at all unless they had the quantities.

Mr. Macpherson said he did not dispute that for a moment.

Examination continued:

He had never seen Mr. Hodges, the builder, before he tendered. From beginning to end he acted honestly and worked in Lord Waterpark's interest. He had, as a matter of fact, put himself out to act in his interest. There were a great many alterations and additions made to the building. Either Lord or Lady Waterpark had some suggestion to make as to alterations every time he went on the job. Finally he got a claim from the builder for 700*l.* extras. In consequence of that he wrote a good many letters to Lord Waterpark, and was several days going through the items. The builder stood out for the amount, and witness had to go and measure up the whole of the work. Ultimately he reduced the builder's claim to 534*l.* for extras. Witness claimed 34*l.* 1s. 10d. for measuring up the work. He also charged for travelling expenses 7*l.* 16s. He had taken fifty-nine journeys during the time the contract was going on, and nineteen special journeys to see his lordship previous to the work being commenced. He had also charged 5*l.* 5s. for a day's journey to London at his lordship's request. He had received 100*l.*, and that left the balance which he claimed.

Cross-examined by Mr. Macpherson:

Would you agree with me that the building owner employs the architect in such work as this to protect him from the builder more than for any other purpose?

His Lordship: The contract is the protection of the building owner.

Mr. Macpherson replied that the contract was not the protection of the building owner where there were extras.

Cross-examination continued:

He certainly had done his duty as architect to protect Lord Waterpark from overcharges by the builder. If he had not taken the trouble to go through the extras Lord Waterpark would have had to pay a great deal more than he did.

When you made this arrangement with the builder did it not put you under obligations to the builder? What arrangement is that?

His Lordship: Taking out the quantities.

The witness: Not at all.

Mr. Macpherson said he did not for a moment say that the plaintiff did anything which was improper, but what he did say was that he put himself into a position that his employer had a right to say he should not.

His Lordship: It is charged as a fraud—as a secret commission which he got to the detriment of his employer. Your charge is a charge of fraud, and that is the question you have raised for the jury.

Mr. Macpherson said he did not charge fraud.

His Lordship: Then there is an end of the claim in respect of that item.

Mr. Macpherson: All I say is that a building owner is entitled to have an architect absolutely free from any relations with the builder.

His Lordship: That is not the case you made. You charged fraud in regard to receiving a secret commission.

The witness was then cross-examined as to his various charges for travelling expenses, &c.

His Lordship suggested that counsel should endeavour to come to a settlement without troubling the jury further; but after consultation, Mr. Macpherson said his client would prefer that the case should be heard out. After the luncheon interval, however, the learned counsel intimated that Lord Waterpark, acting on his advice, had decided to act on his lordship's suggestion.

His Lordship: Very well, but I think I ought to say, in justification of the defendant, that in the affidavit he made in order to get leave to defend, he did not make any charge of fraud against the plaintiff. Somehow or other the charge of fraud came into the pleadings subsequently. Now, I understand it is withdrawn absolutely, and Lord Waterpark takes the proper course in not contesting the items of the account further than has been arranged between counsel.

Mr. Macpherson: Lord Waterpark never intended to make a charge of fraud.

His Lordship: Well, the charge is there.

Mr. Macpherson: No, my lord; the words are "dishonestly and in breach of his duty."

His Lordship: Oh, well!

Mr. Macpherson said that he must take the blame for those words appearing in the pleadings.

Lord Waterpark, rising at the back of the Court, said that the question of the 50*l.* 5s. was brought into the case absolutely against his wish. He did not wish it to be brought forward one bit.

His Lordship: Well, it is entirely withdrawn.

Mr. Smith said that if the charge had never been made, plaintiff would have been always perfectly willing to come to terms.

Finally judgment was entered for the plaintiff for 54*l.* 5s. 2d., including 40*l.* paid into Court, with costs, and a certificate for a special jury.

The defendant's counter-claim was dismissed.

A DISPUTED DAMP COURSE.

AT Brentford Petty Sessions, on Monday, before Mr. Montagu Sharpe and a full Bench, Geo. Martin, builder, of Arragon House, Twickenham, was summoned by the Twickenham Urban District Council for having erected a house within the district not provided with a proper damp course.

Mr. H. Jason Saunders appeared to prosecute, and Mr. Horace Avory, barrister, to defend.

The former said that the by-laws required that the damp course should be of lead, asphalte, vitrified stoneware, or slates laid in cement, or other durable material impervious to moisture. In the case in question a patent damp course was used, but it did not fulfil the joint conditions of durability and imperviousness, and it did not promise to last the lifetime of the building.

Mr. F. W. Pearce, Surveyor to the Council, said that the damp course used consisted of brown paper

covered with tar and sand, with some lime sprinkled on top. In a building subject to damp and alternations of damp and dry, it would decay rapidly, being vegetable material. He should take the average life of such buildings as these, erected on ninety-nine years' leases, as 100 years, and the damp course in question would not last so long. Its duration of life he could not state, as it would depend on the air and the amount of moisture. It could not be renewed when decayed.

In cross-examination he said that the whole by-law was governed by the words "proper damp course." He should say the life of the damp course in question would be ten years. He denied that it was asphalte, which was a natural product of the earth. He had never tested a damp course which had existed 100 years.

Mr. B. Blount, Consulting Chemist to the Agent-General of the British Colonies, member of the Society of Chemists, said that he had analysed a sample of the damp course in question. It was brown paper treated with tar, and had a certain amount of sand sprinkled on it. The tar was very unevenly distributed, and in places the paper was almost bare. The material would be very liable to rot, the brown paper being the weak spot. It could be easily torn, and he could not assign any length of life to it, as it would depend on the varying conditions of the light and air. As made, it was worthless; but if the tar were evenly distributed, it might be useful. It could not be compared with natural asphalt.

Cross-examined: It had the advantage over slates or stoneware that it would give to any settlement of the building. Tar was useless; if really good material was needed, bitumen should be used.

Mr. Nowell Parr, Surveyor to the Brentford District Council, corroborated. He knew no districts around which sanctioned the use of vulcanite damp courses.

Mr. Pearce, recalled, said that he permitted the use of Callender patent damp coursing, but that was made with real bitumen.

Mr. Avory said that the damp course was supplied by the Patent Vulcanite Roof and Asphalte Company, who were defending the action because their material had been largely used in London and the provinces, and had been approved by many London surveyors. The whole question was durability and imperviousness to damp, and the court, in construing the by-law, must regard its words in the most liberal manner.

Mr. Alex. Payne, F.R.I.B.A., District Surveyor for Hackney, said that he had had experience of the vulcanite damp course during the last two years. It was used in the construction of several large factories. He had tested it after two years' life, and he thought it better than when put in. He had tried it for a fortnight, and could not get moisture through it. It was quite durable, and would last the lifetime of buildings it was used in. He preferred it to slate or Callender.

Cross-examined: He thought the sample taken by the District Council was not a fair one. He took one from the house at Twickenham, and it was of a much better character. He produced a sample which had been in use at a factory on Hackney Marshes, and it was in splendid condition.

Mr. Thos. Pessell, of Harrow, said that vulcanite was permitted in the district, and Mr. A. King, builder, and Mr. W. I. King, architect and surveyor, stated that they had used vulcanite with success. The latter used it through a huge factory covering an acre and a-half at Hackney, and no damp had been traced through it.

The Bench stopped the case. They were quite satisfied, from the character of the samples produced by the defence, that the damp course in question was satisfactory, though the sample produced by the prosecution was of very poor character. The witnesses for the defence were quite credible, and there was no reason to doubt their evidence. The summons would be dismissed with costs.

RECENT PATENTS:

ABSTRACTS OF PATENTED INVENTIONS.

3,460.—METHOD OF CUTTING TILES: *W. W. Morris.*—Straight edges are arranged for clamping the tile, which passes over rollers turning in bearings that are sustained with springs, the tile being cut by a roller-ended chisel mounted upon an adjustable arm by means of a spring.

3,474.—WELL-DOORS OF LIFTS, &C.: *H. Rowntree.*—The apparatus is intended primarily for working and cushioning well-doors of lifts, but is also applicable for other doors and gates. It comprises a spring-controlled trip-bar upon the cage, which when a treadle is pressed down bell-cranks turn outwards so as to cause the bar to strike an arm, and thereby operate a valve which supplies compressed air to a cylinder. The piston-rod and its link then cause a lever, pivotted on to the framing and fastened to the door, to close the sliding door. The cylinder also is pivotted on to the framing; when its piston rises the liquid within the cylinder flows through ports in the piston, but at the down-stroke the liquid is covered by a flap upon the piston's underside, and can pass only between the cylinder's wall and the piston's periphery, so as to effect a cushioning of the door.

3,522.—ATTACHMENT OF LINES TO SASHES AND OTHER FRAMES: *C. W. L. Freeman and W. C. Old.*—A slot or recess is made in the stile, and in it is secured a slotted cylindrical fork or thimble; the knot of the line or cord is put into the lower part of the slot in the stile, wherein it is held with flanges.

3,527.—ANTI-FOULING COMPOSITIONS: *J. C. Sellars.*—For preserving metal and other surfaces when immersed or otherwise covered. The surfaces are first coated with Portland cement, or Portland cement mixed with silicate of soda, or a similar material; a mixture of paint and a mild adhesive is then applied, and when that is dry a coating of silicate of soda, potash, &c., is laid on; by another process the metal is coated with a mixture of Portland cement and a mild adhesive having the consistency of a paint; when that is dry a coating of silicate is added.

3,566.—AN APPLIANCE FOR WINDOWS: *W. B. Atkin and W. A. Evans.*—The inventors' purpose is to prevent windows from rattling and to exclude draughts; upon the sashes they provide wedge-shaped projections which, when the sashes are closed, engage with fixed pins in such a manner as to press the stiles against the parting-beads; wedges of the same kind, together with slotted plates, are also affixed to the frame and to sashes at the top and bottom of the window.

3,620.—CONTINUOUS DOWN-DRAUGHT KILNS: *A. Warburton, A. Bailey, and H. Rothwell.*—The inventors build up a set of arched chambers in two rows, back-to-back; they make openings at the level of the floor in the transverse walls between the chambers, and in front of the openings in each chamber they provide a dwarf wall which shall form a combustion space to be furnished with fuel; the chambers communicate by means of openings that can be closed at will, with a ring-shaped underground flue which passes to the chimney, and also through other openings that lead into a flue in the middle dividing wall, by which means any one chamber can be connected with another; in operation the fuel, having been fed into the combustion space of a chamber wherein the goods have just been dried, becomes ignited by the chamber's own heat; after the gases have burned the goods therein they pass into the adjoining chamber that contains the green goods which are to be dried, whilst the burned articles are becoming cool inside the chamber next before the chamber into which the fuel has been passed.

3,629.—MEANS FOR OPENING, CLOSING, AND LOCKING THE DOORS OF LIFTS: *T. Nuttall & W. Cooper.*—On the cage is a friction-rail which engages with one of the rollers around which the rope is wound, the rope being fastened to the door; bowls are placed above and beneath the rollers, and joined with links and spring rods to the bolt; the rail moves the bowls for unlocking the door before it is opened and locking it after it has been shut; the rail is drawn inwards, so that it shall not move the rollers, by the depression of a handle, the rail being pinned to bars, and, under normal conditions, forced outwards with springs.

3,630.—A FASTENING FOR THE KNOBS OF BOLTS AND CATCHES: *J. Legge.*—For fastening knobs on to night and other drawback latch bolts the attachment stud of the knob is made in one piece with the knob itself, and is fastened to the bolt with rivetting or with a nut, whilst its shank is squared so as to prevent a turning of the handle; a distance-piece for the knob consists of a square fillet or washer fashioned upon the bolt or the stud, which fits into the casing-plate.

3,653.—BRICK MOULDING: *J. C. Edwards.*—A cam pin imparts a reciprocating movement to the rectangular feed-box, whose front forces the brick on to the delivery table, being hinged at its top that it may freely pass over clay or other impediment at the box's return motion; a crank-pin that works within the cam-groove of a vertical sliding rod drives the pressing-plunger; the plunger is joined with rods to a frame which, during the pressing process, remains upon the bottom of the mould, but when the plunger is lifted throws the brick out of the mould; the frame is grooved for enabling all surplus clay to escape, and fits over a panel which forms a recess or frog in the brick; a shaft with worm or toothed gearing drives the upper cam or crank shaft, carrying at each of its ends a disc which operates a press upon each side of the machine.

3,745.—METHOD OF DEADENING SOUND: *P. Knoch.*—The inventor uses felt or superposed layers of fabric, which he forms into corrugated plates for the roofs of engine-sheds, railway stations, and similar structures, and also into layers of walls and ceilings for the purpose of deadening sound and excluding weather; plates that have been steeped in chromo-gelatine are when half dry pressed between hot metal plates, having corrugated surfaces, or are passed between hot fluted rollers; they are next treated with acetate of alumina, and are then coated with asphalt and oil paint on their outside and inside respectively.

3,754.—ELECTRICAL WALL-PLUGS: *P. F. W. Simon, H. H. Berry, and C. Rayner.*—A binding-post for the leading-in wires is fastened at the end of each of some metal plates arranged within openings in the base, whilst screwed sleeves upon their other ends take the plug contacts, but the plates and screws are retained in place without being screwed into the base; a disc screwed on to a head constitutes the plug; a projection from the disc engages with a groove formed in the base; the wires are inserted through openings into the head, and are fastened to the plugs by means of nuts.

3,793.—A FLUSHING APPARATUS: *M. J. Adams.*—The invention is intended to automatically regulate the interval between two flushes accordingly as the closets are used; above the upper end of an air-pipe is set a cap to which the lever of the ball-cock is joined; the air-pipe's lower end is extended from the cistern downwards into a chamber which has an inlet from the trap and an outlet to the soil-pipe; the flow of liquid that has collected in the trap and the connecting pipe displaces air from the chamber whereby the cap over the air-pipe is lifted up, the inlet cock is opened, and the flush is determined; in another form the liquid may be caused to act upon the ball-cock when the latter is mounted within the chamber, and an opening for the flush-pipe is formed in the skirting of the basin.

3,826.—ARTIFICIAL STONE: *R. Platz.*—The artificial stone, made of sawdust, water-glass, and powdered chalk mixed together, is described as being, when set, both waterproof and fireproof, a non-conductor of heat, and of a stone-like hardness; it may be polished and lacquered, and will serve for making plinths, pillars, coverings for floors and ceilings, isolating walls, and for similar purposes.

3,916.—SIPHON DISCHARGE: *S. Clark.*—A branch from the siphon's shorter leg is passed into a vessel which contains an elastic bag, from which a pipe extends to the push-button; when the button is pressed the bag expands, and a flush is thereupon started by the water that is impelled over the siphon's crown; a bellows may be substituted for the air-bag.

3,955.—TEMPORARY PIVOT SUPPORTS FOR DOORS, SHUTTERS, WINDOW SASHES, &C.: *G. Parker.*—The contrivance will enable one to swing sashes, doors, &c., out of their normal positions when it is required. For instance, to clean a window from the inside: in the case of sliding sashes T-shaped slots are passed over a headed stud so as to fasten two brackets to the jamb, the brackets being rigidly joined to a pivot rod; two other brackets (whose movement lengthwise is restrained by a screw thimble and a collar) swing freely upon the rod. The specification includes various applications of the main principle involved.

3,961.—MANUFACTURE OF PORTLAND CEMENT: *Güldenstein & Co.*—Blast-furnace slag is granulated in water, and when dried is ground with limestone and a small part of white lime. The mixture is moulded into shapes, which are then burned and ground for making cement.

3,969.—A FASTENING FOR DOORS, SASHES, CASEMENTS, &c.: *T. Pickup.*—In a bracket upon the casement is mounted a claw which can be turned round for engagement with a cam-shaped projection upon the frame; if the casement is violently closed, by the wind or otherwise, a part of the projecting piece engages with the claw's lower part, and so throws the claw over and fastens the window.

MEETINGS.

FRIDAY, JUNE 22.

Royal Institute of British Architects (Architectural Congress, continued). — 11 a.m. — Paper: "Uniform Building By-laws," by Mr. Lacy W. Ridge. Mr. Charles Hadfield (Sheffield) and Mr. A. E. Sawday (Leicester) to move the following resolutions:—1. "That in the interests of architecture it is inexpedient that buildings of a municipal character be designed and erected by engineers or surveyors having no architectural training. 2. That as a matter of sound finance and in the interests of ratepayers, it is desirable that the duties of the Borough Engineer and Surveyor should not include work of an architectural character. 3. That it is detrimental to the interests of the architectural profession that buildings of a municipal character should be designed and erected by the Borough Engineer and Surveyor." 3 p.m.—Visits to Messrs. Jas. Powell & Sons' Glass Works, Whitefriars, E.C.; and Messrs. Holloway Bros.' Works, Westminster. 7.30 p.m.—R.I.B.A. Annual Dinner, Whitehall Rooms, Hotel Métropole.

SATURDAY, JUNE 23.

Royal Institute of British Architects (Architectural Congress, concluded).—Visit to Greenwich.

WEDNESDAY, JUNE 27.

Timber Trades Benevolent Society.—Festival Dinner, Trocadero Restaurant, Piccadilly Circus, W. 6.30 p.m.

Builders' Foremen and Clerks of Works Institution—Half-yearly meeting of the directors. 8 p.m.

Institution of Mechanical Engineers. — London Summer Meeting: (1) Adjourned Discussion on "Road Locomotion;" a short supplementary paper dealing with the recent trials will be submitted by Professor H. S. Hele-Shaw, F.R.S. (2) "Recent Locomotive Practice in France," by M. Edouard Sauvage. (3) "Polyphase Electric Traction," by Professor C. A. Carus-Wilson. (4) "Observations on an Improved Glass Revealer, for Studying Condensation in Steam-Engine Cylinders and rendering the effects visible," by Mr. Bryan Donkin. 10.30 a.m.

THURSDAY, JUNE 28.

Institution of Mechanical Engineers.—London summer meeting (concluded). 10.30 a.m.

Civil and Mechanical Engineers' Society.—Annual

dinner, to be held at the Frascati Restaurant, Oxford-street, W. 7 p.m.

Dundee Institute of Architecture, Science, and Art.—Annual General Business Meeting. 7.30 p.m.

SATURDAY, JUNE 30.

St. Paul's Ecclesiological Society.—Visit to Windsor. Conducted by the Rev. Canon Dalton, F.S.A. Meet in the nave of St. George's at the conclusion of Evensong. 3.40 p.m.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

June 6.—By MADDISON, MILES, & MADDISON (at Yarmouth).

Hopton, Suffolk.—Five enclosures of arable, 86 a. 0r. 16 p., f.	£2,000
Four freehold houses and four cottages	1,100
Enclosures of arable, 42 a. 3 r. 23 p., f.	1,530
Market garden land, 10a. 1r. 24 p., f.	416
Ormesby St. Michael, Norfolk.—A freehold building estate, 23 a. 1r. 26 p.	1,950
Pasture land, 1 a. 0r. 16 p., f.	130
Yarmouth, Norfolk. — Boundary-rd., freehold marsh land, 1 a. 2r. 0p., f.	220

June 7.—By W. DEW & SON (at Llangefni).

Llangristiolus, &c., Anglesey.—Freehold farmhouse and 128 a. 0r. 20 p., f.	6,100
Efail Bach farm, 42 a. 1r. 19p., f.	1,900
Newborough, Anglesey.—Tyddyn Bach farm, 10a. 2r. 6 p., f.	350

By WATERS & RAWLENCE (at Salisbury).

Salisbury, Wilts.—Manor-rd., Delaprè, f.	2,500
Manor-rd, four plots of garden ground, f.	1,120

June 9.—By BENTLEY & SON (at Doncaster).

Kirk Bramwith, Yorks.—A freehold farm, 79 a. 0r. 24 p.	3,410

June 11.—By HARMAN BROS.

Kingston-on-Thames. — 5, Market-pl., area 10,000 ft., f.	8,500
Hackney Downs.—36, Downs Park-rd., u.t. 63 yrs., g.r. 7*l.*, e.r. 55*l.*	460

By HIGGINS & SON.

Kilburn.—4, Mortimer-rd., u.t. 51½ yrs., g.r. 10*l.* 10s., r. 50*l.*	375
Hampstead.—3, Prospect-pl., f., r. 23*l.*	355

By Messrs. KEMSLEY.

Woodford.—Derby-rd., Belmont, f.	1,250
Tolleshunt Knights, Essex.—Park Farm, 117 a. 0r. 26 p., f.	900
Barking, Essex.—111 and 113, St. Margaret's-rd., f.	475

By WILLIAM HOUGHTON.

Walthamstow.—Wood-st., a freehold building estate, with seven cottages and shops thereon, area, 2 a. 1r. 5p.	3,125

By CRASKE & SONS.

Kingsland.—480 and 482, Kingsland-rd., f., r. 165*l.*	2,600
Wapping.—5, Friar's-hill, f.	165
Hackney.—35, Elsdale-st., f., r. 13*l.*	320
Limehouse.—Maroon-st., f.g.r. 2*l.* 10s., reversion in 5½ yrs.	135
Commercial-rd. East.—131, Cannon-st.-rd., f., r. 35*l.*	870

By NOKES & NOKES.

Ponders End.—Montrose-ter., f.g.r. 26*l.*, reversion in 98 yrs.	540
Finsbury Park.—88, Wilberforce-rd., u.t. 67½ yrs., g.r. 8*l.*, e.r. 50*l.*	480

By REYNOLDS & EASON.

Plaistow.—71 to 81 (odd), St. Mary's-rd., u.t. 79 yrs., g.r. 21*l.*	870
Clapton.—Chatsworth-rd., f.g.r. 10*l.*, reversion in 78 yrs.	255
66, 68, and 96, Chatsworth-rd., f., r. 153*l.*	2,655
Lewisham. — 176 to 182 (even), High-st., area 14,850 ft., let on building lease for 80 yrs. at per annum	115
Old Kent-rd. and Leroy-st.—Corner building site, area 8,550 ft., let on lease for 80 yrs. at per annum	210
Old Kent-rd.—Nos. 95, 97, and 99, area 4,850 ft., let on building lease for 80 yrs. at per annum	125

By NIGHTINGALE, PHILLIPS, & PAGE.

Esher, Surrey. — Portsmouth-rd., The Manor House, c., r. 130*l.*	3,000
Portsmouth-rd., The Cottage, c.	925
Stoney Hill, two enclosures of land, 5 a., f.	975

By TOOTH & TOOTH (on the premises).

Norwood.—Crescent-rd., Ferndale, u.t. 56 yrs., g.r. 10*l.*	900

By J. & R. MITCHELL (at Cockermouth).

Embleton, Cumberland.—Mire End Estate, 152 a. 0r. 39 p., f.	5,300

By STEPHENSON & ALEXANDER (at Barry Dock).

Barry Dock, Glamorgan.—63 and 66, Holton-rd., u.t. 84 and 88 yrs., g.r. 11*l.*	2,015
10 and 12, Wyndham-st., u.t. 99 yrs., g.r. 4*l.* 19s.	500

By WRIGHT & SCRUBY (at St. Ives).

Chatteris, Cambs.—A freehold and copyhold farm, 45 a. 2 r. 19 p.	1,820
Somersham, Hunts.—Cottage and two closes, 3 a. 0 r. 8 p., f.	200
A farmhouse and 8 a. 3 r. 15 p., f.	525

June 12.—By ALDRIDGE, DOUGLAS, & Co.

Upper Warlingham, Surrey. — Westhall-rd., a plot of building land, f.	135

By ARTHUR BARTON.

Lee.—26, Effingham-rd., u.t. 70 yrs., g.r. 5*l.* 10s..	295
Greenwich.—24, Royal-hill, f., r. 26*l.*	320

By FRYER, COOPER, & Co.

Holloway.—15, Hilldrop-cres., u.t. 48 yrs., g.r. 3*l.*, r. 55*l.*	615

By HAMILTON & MIALL.

Upton Park.—77 and 79, Monega-rd., f.	470
Leytonstone.—93, 95, and 97, Colworth-rd., u.t. 97 yrs., g.r. 22*l.*, r. 110*l.*	1,050
51, 53, and 57, Colworth-rd., u.t. 93¼ yrs., g.r. 15*l.* 10s., r. 90*l.*	975
Poppleton-rd., six residences, u.t. 93½ yrs., g.r. 42*l.* 1s., r. 218*l.* (including equity)	975
Maple-rd., Newport and Woodhayne, u.t. 93½ yrs., g.r. 17*l.*, r. 84*l.* (including equity)	700

By ROGERS, CHAPMAN, & THOMAS.

Pimlico.—58 to 64 (even), Alderney-st., u.t. 32 yrs., g.r. 36*l.*, r. 260*l.*	£2,085
Holborn.—3 and 7, New Turnstile, f., r. 125*l.*	3,040
4, Kirby-st., area 1,210 ft., f., r. 70*l.*	1,660
Islington.—17 to 23 (odd), College-st., u.t. 16 yrs., g.r. 30*l.*, r. 207*l.*	1,040
Belgravia.—93, Ebury-st., u.t. 19 yrs., g.r. 11*l.* 13s. 4d., r. 65*l.*	760

By WESTON & SONS.

Fulham.—1, 2, and 3, Goldring Cottages, and a plot of land, u.t. 51 yrs., g.r. 52*l.*	255
Stockwell.—6, Aytoun-road, f., e.r. 55*l.*	750

By WALTER WILSON.

Chalk Farm.—109, Regent's Park-rd., u.t. 58 yrs., g.r. 15*l.*, r. 80*l.*	1,035

By WINCH & SONS (at Ashford).

High Halden, Kent.—Ransley Farm, 142 a. 3 r. 13 p., f.	2,050
South Willesborough, Kent.—Two freehold houses (Ebony Villas)	330
A plot of building land ½ a., f.	130

By EDWIN EVANS (at Streatham).

Streatham.—Mitcham-lane, &c., 118 plots of building land, f. (in lots)	5,910

By HUMBERT & FLINT (at Watford).

Watford, Herts.—Lamb-yard, a freehold cottage and stabling, also garden land, &c.	520
26, Water-lane, and workshops, &c., adjoining, f.	360

By LANGRIDGE & FREEMAN (at Tonbridge).

Hadlow, Kent.—Haye's Farm, 17 a. 0 r. 26 p., f.	660
Parker's Green Farm (part of) 6 a. 0 r. 28 p., f.	390
Freehold House and 6 a. 3 r. 24 p.	520

By ORGILL, MARKS, & LAWRENCE (at Masons' Hall Tavern).

Norwood.—Westow Hill, "The White Swan Hotel," u.t. 24 yrs., r. 225*l.*, with goodwill	8,110

June 13.—By BAXTER, PAYNE, & LEPPER.

North Cray, Kent.—London-rd., Ruxley Corner Cottage, f.	430

By FOSTER & CRANFIELD.

Balham.—2, Gascarth-rd., u.t. 92 yrs., g.r. 7*l.*, r. 40*l.*	350
Norwood.—22, Colby-rd., u.t. 78 yrs., g.r. 7*l.*, r. 32*l.*	245

By HUMBERT & FLINT.

Garston, Herts.—Fortune's Farm, 122 a. 3 r. 14 p., f.	7,550
Bushey, Herts.—London-rd., a freehold building estate, 13 a.	4,100
London-rd., Bushey House, and 79 a. 0 r. 39 p., f.	13,500
High-st., Ivy House, and 3 a. 2 r. 19 p., f., r. 121*l.* 10s.	2,000

By PHILLIPS, LEA, & Co.

Holloway.—Camden-rd.—i.g.r. 30*l.*, u.t. 41½ yrs., g.r. 12*l.*, with reversion	300
Kensington.—Redcliffe-gardens, i.g.r. 20*l.*, u.t. 48½ yrs., g.r. 2*l.*, with reversion	370
Finborough-rd., i.g.r. 22*l.*, u.t. 48½ yrs., g.r. 4*l.*, with reversion	330
Hoxton.—28 and 29, Dorchester-st., u.t. 51 yrs., g.r. 26*l.*	300

By E. W. RICHARDSON & SON.

Wood Green.—Granville-rd., six plots of building land, f.	350

By SALTER, REX, & Co.

Kentish Town.—115, Leighton-rd., u.t. 40½ yrs., g.r. 5*l.* 5s., r. 38*l.*	400
130, Leighton-rd., u.t. 35 yrs., g.r. 6*l.*, r. 40*l.*	390
22, Oak Village, u.t. 48 yrs., g.r. 4*l.*, r. 26*l.*	250
2 to 26 (even), Falkland-place; also l.g.r. 5*l.*, u.t. 50½ yrs., g.r. 37*l.*	2,650
10 and 12, Leverton-st., u.t. 34½ yrs., g.r. 10*l.* 10s., r. 53*l.*	430
10, Victoria-rd., u.t. 36 yrs., g.r. 4*l.* 10s., r. 36*l.*	325

By Messrs. WOODS.

Camden Town.—High-st., i.g.r., 31*l.* 10s., u.t. 11¼ yrs., g.r. 1*l.*	220
Albert-st., &c., i.g.r., 42*l.*, u.t. 23½ yrs., g.r. 2*l.* 15s. 6d.	395
Kensington.—48, Pembroke-sq., u.t. 22 yrs., g.r. 7*l.*, r. 45*l.*	365

By DOUGLAS YOUNG & Co.

Horley, Surrey.—Balcombe-rd., Tanner's Farm, 3 a. 3 r. 31 p., f.	700
Brixton.—118, Acre-lane, u.t. 79½ yrs., g.r. 15*l.* 15s., r. 55*l.*	475
Wandsworth.—7, Nottidge-place, u.t. 83 yrs., g.r. 8*l.*, r. 60*l.*	420
29, Winfrith-rd., u.t. 84½ yrs., g.r. 6*l.* 6s.	235
Norwood.—28, St. Julian's Farm-rd., u.t. 80½ yrs., g.r. 7*l.* 7s., r. 30*l.*	265
Camberwell.—18, Horsman-st., f.	300
154 to 160 (even), Farmer's-rd., u.t. 65½ yrs., g.r. 20*l.*	820
Forest Hill.—Devonshire-rd., f.g.r. 24*l.* 10s., reversion in 81 yrs.	637

By M. DEROME & SON (at Carnforth).

Dalton, Lancs.—Cragg House Farm and the Allotment, 144 a. 3 r. 23 p., f.	3,005

By HEPPER & SONS (at Leeds).

Leeds.—2, North Hill-rd., area 2,314 yds., f., r. 110*l.*	3,440

By TABERNACLE & SON (at Horseshoe Hotel).

Bromley, Kent.—Main-rd., the "Rising Sun" p.-h., u.t 70 yrs., r. 110*l.*, with goodwill	5,650

By WRIGHT & SCRUBY (at Waterbeach).

Waterbeach, Cambs.—A freehold farm, 23 a.	1,040
A small holding, 6 a. 3 r. 0 p., f.	450
Two freehold cottages and garden	250
A house and orchard, 1 a. 0 r. 21 p., f.	410
Four enclosures and cottage, 87 a. 1r. 23 p., f.	2,200

By EDWARD BOND (at Aylesbury).

Stewkley, Bucks.—A house and 2a. 1r. 4p., f.	400
Prior's and Grubb's Closes, 8 a. 1 r. 4 p., f. and c.	675
Waddesdon, Bucks.—A dairy farm, 170 a. 0r. 6 p., f.	6,000

June 14.—By BURTON, SMITH & Co.

Brixton.—88, Kellett-rd., u.t. 73 yrs., g.r. 6*l.*, r. 36*l.*	380

By BOYTON, PEGRAM, & BUCKMASTER.

Fulham.—Stanley-rd., i.g.r. 30*l.*, u.t. 32 yrs., g.r. 20*l.*	130
King's-rd., a plot of land with buildings thereon, u.t. 32 yrs., g.r. 1*l.*	300
579 and 581, King's-rd., u.t. 54 yrs., g.r. 8*l.*	520

By Messrs. JEFFRIES.

Poplar.—96 and 98, High-st., f., r. 56*l.*	810

By F. NAYLOR.

Ponders End, Middlesex. — The "Railway Tavern," f.g.r. 115*l.*, reversion in 95 yrs.	£3,700

By ORGILL, MARKS, & LAWRENCE.

Aldershot, Hants.—Short-st., the "Princess Tavern," u.t. 15 yrs., r. 100*l.*	1,300
Union-st., "New Market Tavern," u.t. 10 yrs., r. 150*l.*	450
36, Grosvenor-rd. (with off-licence), u.t. 19½ yrs., r. 60*l.*	775

By BAKER & SONS.

Acton.—Bollo Bridge-rd., &c., ten plots of building land, f.	585
Wood Green.—Crescent-rd., &c., four plots of building land, f.	280
Frinton-on-Sea, Essex.—Station-rd., four plots of building land, f.	165
Wimbledon.—Merton-rd., three plots of building land, f.	600
Clapham.—49, Lansdowne-gardens, u.t. 48 yrs., g.r. 6*l.*, r. 40*l.*	350

By G. ERNEST CLARKE.

Walthamstow.—7, Addison-rd., u.t. 79 yrs., g.r. 5*l.* 5s.	250
1, 2, and 3, Lime-villas, f.	800

By C. C. & T. MOORE.

Poplar.—93 and 95, Pekin-st., f.	660
27 and 29, Upper North-st., f., r. 60*l.*	800
137, 139, and 141, St. Leonard's-rd., f., r. 94*l.*	1,200
56, 58, and 60, Byron-st., f.	1,040
Canning Town.—30 and 32, Nelson-st., and 2, Emily-st., f.	500
Bow.—44 and 46, Sutherland-rd., f.	865
58 and 60, Eglington-rd., f.	925
16, Vernon-rd., f.	410
Mile End.—9, Morgan-st., u.t. 37 yrs., g.r. 8*l.* 10s., e.r. 45*l.*	260
Ratcliffe.—91, Brook-st., f., r. 45*l.*	710
Three Compass-court, a plot of land, f.	170
Bromley-by-Bow.—Empson-st., f.g.r. 6*l.*, reversion in 27 yrs.	220

By NEWBON, EDWARDS, & SHEPHARD.

Kentish Town.—222, Kentish Town-rd., with dairy, &c., in rear, u.t. 48 yrs., g.r. 17*l.*, r. 105*l.*	1,150
Camden Town.—95 and 99, Camden-st., u.t. 55 yrs., g.r. 12*l.*, r. 80*l.*	860
13, Busby-pl., u.t. 49 yrs., g.r. 1*l.* 10s., r. 40*l.*	500
Bethnal Green.—251, Wimbolt-st., u.t. 22 yrs., g.r. 4*l.* 10., r. 48*l.*	275
Hornsey.—17, Alexandra-rd., u.t. 77 yrs., g.r. 8*l.*, r. 40*l.*	465
Gray's Inn-rd.—107, Harrison-st., u.t. 27 yrs., g r. 12*l.*	300

By OSBORN & MERCER.

Holme Hale, &c., Norfolk.—Bury's Hall Estate, 382 a. 2 r. 26 p., f. and c.	4,800
Two enclosures of land, 18 a. 0 r. 14 p., f. and c.	370

By W. J. PALMER.

Holloway.—24 and 40, Kingsdown-rd., u.t. 58 yrs., g.r. 12*l.* 12s., r. 70*l.*	680
Marylebone.—109, Charlotte-st., a profit rental of 60*l.*, for 28¼ yrs.	390

By WILLIAM STEVENS.

Clapton.—17, Cricketfield-rd., u.t. 66 yrs., g.r. 6*l.* 6s., r. 30*l.*	360
Stoke Newington.—20, Ardleigh-rd., u.t. 25 yrs., g.r. 5*l.*, e.r. 65*l.*	600
Leytonstone.—42 and 44, Park Grove-rd., u.t. 86½ yrs., g.r. 8*l.*	400
De Beauvoir Town.—129, De Beauvoir-rd., u.t. 21 yrs., g.r. 4*l.* 17s., r. 40*l.*	235

By J. A. & W. THARP.

Clapton.—2, Lockhurst-st., u.t. 73 yrs., g.r. 5*l.*	280

By STIMSON & SONS.

Peckham.—90 to 96 (even), St. George's-rd., u.t. 62 yrs., g.r. 17*l.* 12s. 6d., r. 142*l.* 16s.	1,310
54 and 118, Gloucester-rd., u.t. 42 yrs., g.r. 2*l.*, r. 65*l.*	570
126, 130, and 132, Cator-st., u.t. 45 yrs., g.r. 7*l.* 11s.	685
180 and 182, Cator-st., f.	710
10, 12, and 14, Rosemary-rd., and 1 to 8, Castle-sq., u.t. 51 yrs., g.r. 15*l.*	1,710

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; e.r. for estimated rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; yd. for yard.

PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

WOOD.*

Per Petersburg standard hundred.

	£	s.	d.	£	s.	d.
White Sea: first yellow deals	17	15	0	22	10	0
Second do.	15	15	0	18	0	0
Third do.	12	15	0	14	10	0
Battens, 40s., 30s., and 15s. less respectively.						
Petersburg: first yellow deals	15	0	0	17	15	0
Second do.	12	10	0	13	15	0
Battens, 30s. and 20s. less respectively.						
Petersburg, white deals	12	0	0	14	15	0
Do. white battens	10	15	0	12	0	0
Riga, white deals	9	15	0	11	10	0
Swedish mixed yellow deals	16	5	0	21	0	0
,, Third do.	14	10	0	16	15	0
,, Fourth do.	13	0	0	14	5	0
,, Fifth do.	12	0	0	13	5	0
Battens, 30s., 20s., and 10s. less respectively.						
Whitewood, 10 to 20 per cent. less.						
Finnish unsorted yellow deals	11	10	0	12	5	0
Battens, 10s. and 5s. less respectively.						

* The prices named are for the wood as imported and landed in the docks. Ten per cent., approximately, should be added in order to arrive at the current trade prices.

[*See also page 627.*

COMPETITIONS, CONTRACTS, AND PUBLIC APPOINTMENTS.

(For some Contracts, &c., still open, but not included in this List, see previous issues.)

COMPETITIONS.

Nature of Work.	By whom Advertised.	Premiums.	Designs to be delivered
*Cemetery	Cheadle and Gatley U.D.C.	.....	July 31

CONTRACTS.

Nature of Work or Materials.	By whom Required.	Forms of Tender, &c., Supplied by	Tenders to be delivered
*Paving	Barnet U.D.C.	W. H. Mansbridge, Surveyor, 40, High-street, Barnet	June 26
*Precipitating Tanks, &c.	do.	do.	do.
Railway Station, Carmarthen	Great Western Railway Company	G. K. Mills, Paddington Station	do.
Reflooring Bridge over Railway, near Yeovil	do.	do.	do.
House, Twyford Station	do.	do.	do.
Additions to Morton Villa, Thornhill Lees	Mr. J. R. Kilner	F. W. Ridgway, Architect, Bond-street, Dewsbury	do.
Electricity Works	Keighley Corporation	J. M. Smyth, Borough Engineer, Bridge-street, Keighley	do.
Kerbing, &c., Gladstone-road	Barry (Glam.) U.D.C.	J. C. Pardoe, Civil Engineer, Holton-road, Barry	do.
Alterations to Workhouse Hospital	Truro Guardians	F. Truscott, Union Offices, Truro	do.
Alterations to School, Low-road, Hunslet	Leeds School Board	W. S. Braithwaite, Architect, Leeds	do.
Additions to Crossley Temporary Hospital	Liversedge & Mirfield Jt. Hos. Bd.	F. H. Hare, Civil Engineer, Town Hall, Mirfield	do.
Sewerage Works, East Stanley	Stanley (Durham) U.D.C.	J. Routledge, Surveyor, Council Offices, Stanley	do.
Weigh Office, Sheds, &c.	Ashton-under-Lyne Corporation	J. Earnshaw, Civil Engineer, Town Hall	do.
Road Works, St. Fagan's-street and Others	Cardiff Corporation	W. Harpur, Civil Engineer, Town Hall	do.
Police Station, Midsomer Norton, Bath	.....	W. J. Wilcox, Surveyor, 1, Belmont, Bath	do.
Sewers	Shrewsbury Corporation	Taylor, Sons, & Santo Crimp, C.E., 27, Great George-street, S.W.	June 27
Paving Flags, &c.	Ramsgate Corporation	T. G. Taylor, Borough Surveyor, Broad-street, Ramsgate	do.
Re-erecting Business Premises, Church-st., Lancaster	Messrs. Mansergh & Son	J. Parkinson, Architect, 67, Church-street, Lancaster	do.
Four Cottages, Burston, Norfolk	.....	F. S. Alger, Surveyor, Mere-street, Diss	do.
Rebuilding Chapel, Mynyddygareg, Wales	.....	Rev. M. T. Rees, Green Hall, Kidwelly	do.
Repairs to Oak Tree Cottage, Woodham Ferris, Essex	.....	C. & W. H. Pertwee, Architects, Bank Chambers, Chelmsford	do.
*Making-up Brandenburgh-road	Fulham Vestry	Surveyor, Town Hall, Walham Green	do.
Business Premises, &c., Buncrana, Ireland	Mr. P. Porter	J. P. M'Grath, Architect, 28, Carlisle-road, Londonderry	June 28
Electric Light Buildings, Public Baths, &c.	Heckmondwike U.D.C.	J. Saville, Surveyor, Council's Offices	do.
Sewerage Works	South Shields Corporation	S. E. Burgess, Civil Engineer, Chapter-row, South Shields	do.
Paving Works, &c.	Willenhall (Staffs.) U.D.C.	C. J. Jenkin, Civil Engineer, Town Hall, Willenhall	do.
Additions to Farmhouse, Dillicar, near Lowgill	Messrs. Moser	J. Stalker, Architect, Kendal	do.
Addition to St. Chad's Mission Room, Far Headingley	.....	Smith & Tweedale, Architects, 12, South-parade, Leeds	do.
Farmhouse, Newchurch, Lancs.	Mr. H. H. Bolton	F. J. Hobson, Architect, King-street, Rawtenstall	do.
Ten Houses, Tantobie	Co-operative Society, Ltd.	G. T. Wilson, Architect, 121, Durham-road, Blackhill	do.
Two Houses, Horsforth	.....	Milnes & France, Architects, 99, Swan-arcade, Bradford	do.
Road Works, Linthorpe-avenue	Middlesbrough Corporation	F. Baker, Civil Engineer, Municipal Buildings, Middlesbrough	do.
Surveyor's Materials	Wisbech U.D.C.	J. Kerridge, Surveyor, Club Chambers, Old Market, Wisbech	June 29
Paving Works, &c.	Goole U.D.C.	F. Chambers, Surveyor, Council Offices	do.
School, Irvinestown, Ireland	.....	H. Armstrong, Irvinestown	do.
Schools	Gowerton (Wales) School Board	J. B. Morgan, Architect, Llanelly	do.
Sewers	Macclesfield R.D.C.	J. Thorpe, Surveyor, 19, King Edward-street, Macclesfield	June 30
Three Pairs Villa Residences, Black Rock, Brighton	.....	J. M. Ferguson, Architect, 8, Quality-court, Chancery-lane, E.C.	do.
Farmhouse, &c., Ippiepen, Devon	Mr. R. Meddicott	S. Segar, Architect, Union-street, Newton Abbot	do.
House and Shop, Llangollen	Mr. E. Evans	R. T. Jones, Architect, Llangollen	do.
Additions to Lanyon House, Gwinear, Cornwall	.....	Sampson Hill, Architect, Redruth	do.
Church, Old Hartley	.....	Rev. C. Longstaff, Bwm Villa, Seaton Delaval, R.S.O.	do.
Additions to Schools, Warwick	Managers, King's Middle School	R. C. Heath, 1, New-street, Warwick	do.
Reconstruction of Bridge, Pinney Terrace	Bristol Docks Committee	W. W. Squire, Engineer, Cumberland Basin, Bristol	do.
Two Houses, Street-lane, Leeds	Mr. A. Webster	W. H. Beevers, Architect, 26, Bond-street, Leeds	do.
Paving Setts	Croston (Preston) U.D.C.	T. Whittle, Surveyor, The Hillocks, Croston	July 1
*Public Conveniences	Oxford Corporation	See Advertisement	July 2
*Granite Pitchings	Bermondsey Vestry	Surveyor, Town Hall, Spa-road	do.
Sewers	Rotherham Corporation	R. E. Berrington, Engineer, Wolverhampton	do.
Sewerage Works	Southwick (Sussex) U.D.C.	C. O. Blaber, Civil Engineer, 64, Ship-street, Brighton	do.
Additions to Town Hall	Loughborough(Leics.)TownCouncil	A. H. Walker, Civil Engineer, Town Offices	do.
Rebuilding the Boar's Head Hotel, Bury	George-street Brewery Co., Ltd.	J. Grundy & Sons, Architects, 12, Brazennose-street, Manchester	do.
House, Montpellier Gardens, Exmouth	Mr. W. Sansom	P. Sherwin, Architect, Manchester-street, Exmouth	do.
Paving Works, Town Gate	Northowram (Yorks.) U.D.C.	Walsh & Nicholas, Architects, L. & Y. Bank Chambers, Halifax	do.
*Rubble Wall	Burton-upon-Trent Corporation	Borough Engineer, Town Hall, Burton-on-Trent	July 3
Schools, Bursar-street	Cleethorpes School Board	Croft & Bentley, Architects, Orborne-street, Great Grimsby	do.
*Alterations and Additions to the Venta, Baldwin-st.	Bristol Corporation	See Advertisement	do.
*Pitching	Mile End Old Town Vestry	See Advertisement	July 4
*Making-up Wilton-avenue	Chiswick U.D.C.	Surveyor, Council Offices, Sutton Court, Chiswick	do.
Houses, Alexandra-road	Barnstaple Guardians	W. C. Oliver, Architect, Barnstaple	do.
Eleven Labourers' Dwellings, Harpur's-lane Market	Cork Corporation	R. A. Cutler, Civil Engineer, Municipal Buildings, Cork	July 5
*Hospital	Sheffield City Hospital Committee	City Surveyor, Town Hall, Sheffield	do.
*Drain Pipes	Brighton County Council	Borough Engineer, Town Hall, Brighton	July 6
Surveyor's Materials	Sunderland R.D.C.	J. Young, Surveyor, Council's Offices	July 7
Schools, Old-road, Brampton	Chesterfield School Board	W. C. Jackson, Architect, 29, Knifesmith-gate, Chesterfield	do.
*Brick Transformer Stations	Beckenham U.D.C.	See Advertisement	July 9
*Farm Buildings at Heath Asylum, Bexley, Kent	The Asylums Committee	Clerk, 6, Waterloo-place, S.W.	do.
*Town Hall Extension, &c.	Shoreditch Vestry	Clerk, Town Hall, Old-street, E.C.	do.
*Drainage, Kerbing, Channelling, &c.	Hendon U.D.C.	Engineer, The Burroughs, Hendon, N.W.	do.
*Bridge	Hull Corporation	City Engineer, Town Hall, Hull	July 13
*Service Reservoir	Tees Valley Water Board	See Advertisement	July 14
*Superstructure of New Asylum	.....	See Advertisement	July 16
*Additional Premises at Patcham	Patcham School Board	.....	July 17
Granite (960 tons)	Lewes Town Council	M. S. Blaker, Town Hall, Lewes	July 21
*Law Courts and Town Hall	Cardiff Corporation	Town Clerk, Town Hall, Cardiff	July 30
Two Semi-Detached Houses, Kingston-road, Merton	.....	R. A. Hinds, Architect, 36A, Hill-road, Wimbledon	No date
Street Works	Stapleford Co-operative Soc., Ltd.	R. R. Ridgway, Surveyor, Long Eaton	do.
Rebuilding the Butcher's Arms, Neath, Wales	Messrs. W. J. Rogers, Limited	Swash & Bain, Architects, Midland Bank Chambers, Newport	do.
Villa, Broadstone, Dorset	Dr. C. W. Curtis	W. Andrew, Architect, Alton Office, Parkstone	do.
*Enlargement of Carnforth Church, Lancashire	.....	W. G. Scott, Architect, 25, Bedford-row, W.C.	do.
*Heating and Hot-water Supply, Workhouse Infirmary	Maidenhead Union	.....	do.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Application to be in
*Inspector of Nuisances	Winchester Town Council	100*l.* per annum	June 26
*Engineering Assistant	Beckenham U.D.C.	100*l.* per annum	June 28
*Clerk of Works	London County Council	.....	June 29
*Clerk of Works	Leicester Corporation	50*s.* weekly	June 30
*Building and Drainage Inspector	Hornsey U.D.C.	160*l.* per annum	July 4
*Inspector of Works	Itchen U.D.C.	3*l.* 3*s.* per week	July 7

Those marked with an asterisk (*) are advertised in this Number. **Competitions**, p. iv. **Contracts**, pp. iv. vi. viii. x. & xxiii. **Public Appointments**, pp. xx. & xxiii.

PRICES CURRENT *(Continued)*.

	£ s. d.	£ s. d.
Whitewood, 5 to 10 per cent. less.		
Norwegian second yellow battens	8 10 0	9 0 0
Third do.	8 0 0	8 15 0
Fourth do.	7 15 0	8 5 0
Whitewood, 10s. less.		
Danzig, Crown Deck deals, per 40 ft. 3 in.	0 15 0	1 5 0
Brack	0 12 0	1 0 0
St. Lawrence Pine deals, &c., per P.S.H. :—		
1st, Bright and Dry, regular sizes	21 15 0	28 15 0
" " oddments	15 5 0	22 15 0
2nd " regular sizes	17 5 0	19 15 0
" " oddments	11 15 0	16 5 0
3rd, " regular sizes	11 0 0	12 0 0
" " oddments	9 10 0	10 10 0
4th " regular sizes	10 0 0	11 0 0
" " oddments	9 0 0	10 0 0
St. Lawrence Spruce deals, &c.		
First, regular sizes	12 15 0	15 0 0
Second "	10 10 0	11 0 0
Third "	10 5 0	10 10 0
Fourth "	9 15 0	10 5 0
Oddments and battens at 20s., 10s., 7s. 6d., and 5s. less respectively.		
New Brunswick Spruce deals, &c.	10 0 0	11 15 0
Oddments, battens, and fourths	9 10 0	10 0 0
United States pitch pine planks and boards	11 0 0	15 0 0
Prepared Boards, per square		
1¼ by 6½ and 7 in. 1st yellow	11 6	26 6
" " and "	11 0	13 6
1 by 6½ and 7 in. 1st "	10 6	12 6
" " white	9 6	10 6
" " and yellow	9 6	11 6
" " white	8 6	9 6
¾ by 6½ & 7 in. 1st & 2nd yellow	8 6	9 6
" " white	8 0	9 0
¾ by 6½ and 7 in. 1st yellow and white (grooved, tongued, and beaded)	9 0	10 0
¾ by 6½ and 7 in. 2nd yellow and white (ditto)	8 0	9 0
¾ by 6½ and 7 in. 1st yellow and white (ditto)	7 0	8 0
¾ by 6½ and 7 in. 2nd yellow and white (ditto)	6 6	7 6
Narrower widths at 10 per cent. less. 3rd quality at 15 per cent. less than 2nd.		
Danzig and Memel Fir Timber— per load		
Best middling	3 10 0	3 15 0
Good middling and Second	3 0 0	3 5 0
Common middling	2 15 0	3 0 0
Undersized	2 15 0	3 0 0
Swedish and Norwegian Balks	2 5 0	2 10 0
Baltic Oak Timber—		
Danzig and Stettin—Large	4 5 0	6 0 0
Small	3 12 6	4 10 0
Quebec Timber per load		
Yellow Pine	5 5 0	6 15 0
Oak	4 0 0	6 0 0
Elm	4 0 0	4 5 0
Ash	3 5 0	4 0 0
Birch	3 12 6	6 0 0
New Brunswick, &c., Birch	3 7 6	4 5 0
American Pitch Pine Timber	2 17 6	4 5 0
Wainscot, per log, 18 cubic ft.—		
Crown (Eng. & Dutch) } nominal	3 0 0	4 0 0
Brack } nominal	2 7 6	3 0 0
Lathwood, per cubic fathom—		
Petersburg	4 0 0	6 10 0
Riga and Danzig	4 10 0	5 10 0
Norway Poles, per ft. run	0 0 1	0 0 1½
Oak Staves, per mille full size pipe		
Memel, Crown	220 0 0	230 0 0
Brack	190 0 0	200 0 0
Dantzig	165 0 0	175 0 0
Bosnia, single Barrel (nominal)	28 0 0	30 0 0
United States, Pipe	37 10 0	45 0 0
Hogshead, extra heavy and double extra	30 0 0	35 0 0
Indian Teake per load	10 10 0	16 0 0
British Guiana Greenheart	0 0 0	8 0 0
Mahogany, per foot superficial—		
Honduras, cargo average	0 0 4½	0 0 5½
Nicaragua, do.	0 0 4½	0 0 5½
Tabasco, do.	0 0 4½	0 0 6
Mexican, do.	0 0 4	0 0 4½
Panama, do.	0 0 3½	0 0 4
African, do.	0 0 3½	0 0 5
Cuba, do	0 0 6	0 0 8
St. Domingo, do.	0 0 5	0 0 7½
Do. Curls (good to prime)	0 0 9	0 1 3
Walnut, American (logs)	0 3 0	0 5 0
Do. do. (planks and boards)	0 2 0	0 7 6
Italian, per foot superficial	0 0 3	0 0 7½
Black Sea, per ton	6 0 0	12 0 0
Satin Walnut (logs) per foot cube	0 1 0	0 1 6
" (planks and boards)	0 1 9	0 3 0
Sequoia (Californian redwood), per foot cube	0 1 9	0 2 0
Whitewood, American (logs)	0 1 4	0 1 9
" " (planks and boards)	0 1 9	0 2 9
Quartered oak " "	0 2 3	0 4 0
Kauri pine (logs)	0 1 9	0 2 0
" " (planks)	0 2 3	0 2 9
Jarrah (planks)	0 2 0	0 2 3
Lancewood spars each, fresh and large	0 5 0	0 7 0
Lancewood spars, ordinary to fair	0 3 0	0 4 0
Degame spars	0 8 0	0 10 0

METALS.

IRON—Pig, in Scotland ton	3 5 8	0 0 0
Bar, Welsh, in London	9 0 0	9 15 0
Do. do. at works in Wales	8 10 0	9 0 0
Do. Staffordshire, in London	9 15 0	11 15 0
COPPER British cake and ingot	75 0 0	76 0 0
Best selected	76 0 0	77 0 0
Sheets, strong	83 0 0	0 0 0
Chili bars	71 10 0	71 15 0
YELLOW METAL lb.	6½d.	7d.

PRICES CURRENT *(Continued)*.

	£ s. d.	£ s. d.
LEAD—Pig		
Spanish ton	17 5 0	- - -
English Com. Brands	17 15 0	- - -
Sheet, English, 6 lbs. per sq. ft. and upwards	19 5 0	- - -
Pipe	19 15 0	- - -
ZINC—		
Vieille Montagne ton	27 10 0	- - -
Silesian	27 10 0	- - -
Spelter	19 10 0	- - -
TIN—Straits	145 0 0	- - -
Australian	147 0 0	- - -
English Ingots	149 0 0	- - -
Banca	- - -	- - -
Billiton	- - -	- - -

ENGLISH SHEET GLASS IN CRATES.

1 oz. thirds	2½d. per ft. delivered.
" fourths	2d. " "
21 oz. thirds	3d. " "
" " fourths	2¾d. " "
26 oz thirds	4d. " "
" " fourths	3¾d. " "
32 oz. thirds	5d. " "
" " fourths	4¾d. " "
Fluted sheet, 15 oz.	2½d. " "
" 18 21 "	3¼d. " "

OILS, &c.

Raw Linseed Oil in pipes, per ton	36 0 0	- - -
" " " in drums, per gal.	0 3 0	- - -
Boiled " " in pipes, per ton	38 0 0	- - -
" " " in drums, per gal.	0 3 2	- - -
TAR—Stockholm barrel	1 6 6	- - -
Archangel	1 0 0	- - -
Turpentine, in barrels, per cwt.	2 2 0	- - -
" in drums, per gal.	0 3 3	- - -
Genuine Ground English White Lead	26 0 0	- - -
Red Lead	22 0 0	- - -
Best Linseed Oil Putty, per cwt.	0 9 0	- - -

VARNISHES, &c.

	per gallon.
Fine Elastic Copal Varnish for outside work	0 16 0
Best Elastic Copal Varnish for outside work	1 0 0
Best Elastic Carriage Varnish for outside work	0 16 0
Best Hard Oak Varnish for inside work	0 10 6
Best Extra Hard Church Oak Varnish for inside work	0 10 6
Fine Hard Copal Varnish for inside work	0 16 0
Best Hard Copal Varnish for inside work	1 0 0
Best Hard Carriage Varnish for inside work	0 16 0
Extra Pale Paper Varnish	0 12 0
Best Japan Gold Size	0 10 0
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 8 0
Brunswick Black	0 8 0
Berlin Black	0 15 6
Knotting	0 9 6
Best French and Brush Polish	0 9 0

BRICKS, &c.

	s. d.				
Hard Stocks	32 0	per thousand alongside, in river.			
Rough Stocks and Grizzles	28 0	"	"	"	"
Smooth Bright Facing Stocks	58 0	"	"	"	"
Shippers	42 0	"	"	"	"
Flettons	29 0	"	"	at railway depôt.	
Red Wire Cuts	34 0	"	"	"	"
Best Fareham Red	71 6	"	"	"	"
Best Blue Pressed Staffordshire	86 0	"	"	"	"
Best Stourbridge Fire Bricks	84 0	"	"	"	"
Best White Glazed Stretchers	260 0	"	"	"	"
Headers	240 0	"	"	"	"
Quoins and Bull-nose	340 0	"	"	"	"
Double Headers	320 0	"	"	"	"
Best Dipped Salt Glazed Stretchers and Headers	240 0	"	"	"	"
Quoins and Bull-nose	280 0	"	"	"	"
Double Headers	280 0	per thousand at railway depôt.			
Seconds Quality White and Dipped Salt Glazed	40 0	per thousand less than best.			
Thames and Pit Sand	8 0	per yard, delivered			
Thames Ballast	6 9	"	"		
Best Portland Cement	35 0	per ton	"		
Best Ground Blue Lias Lime	23 0	"	"		

NOTE.—The cement and lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime ..... 12s. od. per yard, delivered.
Stourbridge Fire-clay in sacks, 31s. 6d. per ton at rly, dpt.

STONE.

	s. d.			
Ancaster in blocks	2 0	per ft. cube, dekd.	rly.	depôt
Bath "	1 7	"	"	
Beer "	1 6½	"	"	
Grinshill "	1 10	"	"	
Brown Portland in blocks	2 2	"	"	
Darley Dale "	2 1½	"	"	
Red Corsehill "	2 5	"	"	
Red Mansfield "	2 4½	"	"	
Hard York "	2 10	"	"	
Hard York 6 in. sawn both sides landings, to sizes (under 40 ft. sup.)	2 7	per ft. super	at rly.	depôt.
" " 6 in. Rubbed Ditto	2 10½	"	"	
" " 3 in. sawn both sides slabs (random sizes)	1 3	"	"	
" " 3 in. self-faced Ditto	0 9	"	"	

PRICES CURRENT *(Continued)*.

SLATES.

	£ s. d.	
in. in.		
20×10 best blue Bangor	11 5 0	per 1000 of 1200 at ry. dep.
" best seconds	10 15 0	" "
16× 8 best "	6 2 6	" "
20×10 best blue Portmadoc	10 18 0	" "
16× 8 " "	6 0 0	" "
20×10 best Eureka unfading green	11 2 6	" "
16× 8 " "	6 15 0	" "
20×10 Permanent green and Sedan green	10 0 0	" "
16× 8 " "	5 12 6	" "

TILES.

	s. d.			
Best plain red roofing tiles	41 0	per 1,000	at rly.	depôt.
Hip and valley tiles	3 7	per doz.	"	"
Best Broseley tiles	43 0	per 1,000	"	"
Hip and valley tiles	4 0	per doz.	"	"
Best Ruabon Red, brown or brindled Do. (Edwards)	37 6	per 1,000	"	"
Do. ornamental Do.	60 0	"	"	"
Hip tiles	4 0	per doz.	"	"
Valley tiles	3 9	"	"	"
Best Red or Mottled Staffordshire Do. (Peakes)	50 9	per 1,000	"	"
Hip tiles	4 1	per doz.	"	"
Valley tiles	3 8	"	"	"

TO CORRESPONDENTS.

J. B. T.—A. H.—S. W. (Amounts should have been stated).

NOTE.—The responsibility of signed articles, letters, and papers read at meetings, rests, of course, with the authors.

We cannot undertake to return rejected communications.

Letters or communications (beyond mere news items) which have been duplicated for other journals are NOT DESIRED.

We are compelled to decline pointing out books and giving addresses.

Any commission to a contributor to write an article is given subject to the approval of the article, when written, by the Editor, who retains the right to reject it if unsatisfactory. The receipt by the author of a proof of an article in type does not necessarily imply its acceptance.

All communications regarding literary and artistic matters should be addressed to THE EDITOR; those relating to advertisements and other exclusively business matters should be addressed to THE PUBLISHER, and *not* to the Editor.

TENDERS.

[Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than 10 a.m. on Thursdays.* N.B.—We cannot publish Tenders unless authenticated either by the architect or the building-owner; and we cannot publish announcements of Tenders accepted unless the amount of the Tender is given, nor any list in which the lowest Tender is under £100, unless in some exceptional cases and for special reasons.]

* Denotes *accepted.* † Denotes *provisionally accepted.*

ALNWICK.—Accepted for the construction of stabling, lofts, &c, Green Bat, for the Urban District Council. Mr. Geoffrey Wilson, Surveyor, Council Offices, Alnwick :—

Masonry.—John Whinham, Alnwick	£149 10
Joinery.—Short & Son, Alnwick	143 5
Plumbing and Smith's Work.—J. N. Reavell, Alnwick	45 0
Slating.—Jos. Purdie, Alnwick	43 18
Painting and Glazing.—J.W. Kransgrill, Alnwick	2 9
	£389 8

[Estimate for works tendered for, 400*l*.]

BEDALE.—For the erection of the "New Inn" and outbuildings, Hunton, for Mr. J. E. Miller. Mr. T. F. King, architect, Edgley, Leyburn :—

John Willoughby, Northallerton* £442 10

BRYN.—For the erection of a church. Mr. F. B. Smith, architect, Port Talbot :—

E. Groom	£3,610 9 3	Jno. Davies	£3,290 0 0
Lattey & Co., Cardiff*	3,444 14 10		

HORSELL (SURREY).—For new residence in Carlton-road, Horsell, Woking, for Mr. R. Gale. Mr. Hy. A. Whitburn, architect, 22, Surrey street, W.C., and Woking. Quantities by Mr. Edwin C. Pinks, Parliament Mansions, Victoria-street, S.W. :—

Stanley Ellis	£3,460	Ingram & Son	£2,870
Heglett & Hammond	3,394	R. Wood	2,367
G. Kemp	2,950	Harris & Son, Woking*	2,725
Martin Wells & Co.	2,899		

ISLEWORTH.—For cleaning, distempering, and painting at the Infirmary, for the Guardians of the Brentford Union. Mr. D. T. Haylock, clerk of works :—

		Extra if Dados are Painted.
Towner & Co.	£789 15 10	£127 19 6
Messom & Sons*	600 0 0	43 0 0
Cutler	476 9 0	90 9 0

[*See also next page.*

ISLEWORTH.—For forming, curbing, and channelling road next the boiler-house of schools, for the Guardians of the Brentford Union. Mr. D. T. Haylock, clerk of works:—

Chapman	£167 10	Dorey & Co.*	£147 0

LONDON.—For alterations to the "Lord Gough" public-house, West Ham, E. Messrs. Foulsham & Herbert Riches, architects, 3, Crooked-lane, King William-street, E.C., and Bromley-by-Bow, E. Quantities supplied:—

W. Maddison	£1,767	A. Webb	£1,735
Courtney & Fairbairn	1,755	Welsh & Son	1,620
A. E. Symes	1,750	Sheffield Bros.*	1,555

LONDON.—For rebuilding and reinstating after fire the "Railway Bar" public house, Elephant and Castle, S.E., for Messrs. Barclay, Perkins, & Co. Mr. G. Hubbard, architect:—

Goodall & Sons	£1,626	J. C. Richards	£1,497
Webber & Co.	1,520	W. Nash, New Cross*	1,479
Burman & Sons	1,497		

LONDON.—For alterations at 489, Green-lanes, Harringay. Mr. C. J. Shaw, architect, 49, Finsbury-pavement, E.C.:—

Lyle Co.	£574 0	Worsley & Co.	£503 0
M. D. Wills	569 0	Treble & Son	498 10
Sheffield Bros.	549 0	Sims & Wood	427 0

LONDON.—For the construction of a lift at premises, Earl-street, Southwark, S.E., for Messrs. A. Joseph & Co. Mr. H. Fuller Clark, architect, 28, John-street, Bedford-row, W.C.:—

The Otis Elevator Co.	£444	M. T. Medway & Co.	263
R. Waygood & Co.	265	A. Smith & Stevens	258

MUSSELBURGH (N.B.).—For the erection of concrete sea-walls for the Town Council. Quantities by Mr. Geo. Landale, Burgh Surveyor:—

Wm. Nicolson	£474 10	Jas. Jamieson, Musselburgh*	279 19
John Downie	405 8		
McDonald & Son	289 11	Peter Bow	£272 16

NEASDEN.—For new drawing-room wing and alterations at The Grove, Neasden, N.W., for Mr. E. Tubbs. Mr. Hy. A. Whitburn, architect, 22, Surrey-street, W.C. and Woking:—

Bruton & Sons, Bayswater* £325

REIGATE.—For addition to Wray Farm, Reigate. For Mr. T. Lawes. Mr. C. E. Salmon, architect, Bell-street, Reigate:—

G. Martin, Redhill* ..... £193 10s.

SOUTHEND.—For proposed Baptist church and Sunday school, Milton-road. Mr. Frank E. Smee, architect, 12, West Smithfield. Quantities by Messrs. Goodchild & Son, 81, Finsbury-pavement, E.C.:—

	Chapel.	School	Total.
	£ s. d.	£ s. d.	£ s. d.
Smith	5,750 0 0	933 0 0	6,683 0 0
Parmenter	5,443 0 0	984 0 0	6,427 0 0
F. & E. Davey	5,337 0 0	960 0 0	6,297 0 0
West	4,933 0 0	960 0 0	5,893 0 0
Darke	4,910 0 0	930 0 0	5,840 0 0
Dupont	4,914 18 0	921 16 7	5,836 14 7
Hammond	4,890 0 0	940 0 0	5,830 0 0
Davis & Leaney*	4,805 0 0	902 0 0	5,707 0 0
E. & W. E. Davey	4,804 0 0	866 0 0	5,670 0 0

SWINDON.—For the erection of a cemetery chapel, fencing, boundary walls, palisading, &c., Cricklade, Wilts, for the Burial Board. Messrs. Wm. Drew & Sons, architects, Victoria-street, Swindon:—

Flewelling & Huckson	£880	C. Williams	£687
Barnes & Son	820	J. Williams, Swindon*	656

TREDEGAR (Mon.).—For the erection of a hotel, for Messrs. Griffiths Bros., Limited. Messrs. Lansdowne & Griggs, architects, Metropolitan Bank Chambers, Newport, Mon.:—

J. Morgan	£2,928 0 0	C. H. Reed	£2,150 0 0
Lovell & Sons	2,610 0 0	G. A. Thomas	2,110 8 5
D. J. Davies	2,398 0 0	C. F. Morgan, Newbridge*	2,075 0 0
Lattey & Co.	2,365 0 0		
F. C. Parfitt	2,335 0 0		

WANSTEAD (Essex).—For painting at Downsell-road Schools (chiefly internal) and Cann Hall Lane Schools (chiefly external, both buildings), for the Wanstead School Board. Mr. John T. Bressey, architect and surveyor, 70 and 71, Bishopsgate-street Within, E.C.:—

	Downsell-rd. School.	Cann Hall Lane School.	Total.
Reed & Son	£351 10	£173 10	£585 0
J. F. Holliday	180 0	340 0	520 0
A. W. Robins	247 10	89 0	336 10
Woollaston Bros., 22, Lacey-street, Bow, E.*	170 0	110 0	280 0
H. Mathews	—	136 0	—
Calnan & Son	—	127 10	—
Architect's estimate	325 0	125 0	450 0

WEST HAM.—For the erection of forty-five houses, Corporation-street, Plaistow, for the Town Council. Mr. J. J. Morley, Borough Engineer, Town Hall, West Ham, E.:—

Veale & Carter	£34,558 0 0	Gregar & Son	£29,925 0 0
Shillitoe & Son	34,000 0 0	Horlock & Son	29,344 0 0
Leslie & Co., Ltd.	31,969 0 0	H. J. Carter	29,035 0 0
Thomas & Edge	31,410 0 0	Haines & Co.	29,025 0 0
		G. Wise	27,808 0 0
		Herbert Bros. East Ham, E.*	20,726 12 6

WOKING (Surrey).—For proposed pair of cottages at Prior Croft, for Mr. W. L. Russell. Mr. Hy. A. Whitburn, architect, 22, Surrey-street, W.C., and Woking:—

F. L. Kemp	£513 0	W. Hall	£459 18
W. W. Gale	490 0	Drowley & Co., Woking*	434 0
A. A. Gale	485 0		
L. Whitburn	465 0		

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